



2014

# Social Media and Reflective Thinking: A Case Study of Generation Y Business Students

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## Recommended Citation

Neier, Stacy, "Social Media and Reflective Thinking: A Case Study of Generation Y Business Students" (2014). *Dissertations*. Paper 1295.

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LOYOLA UNIVERSITY CHICAGO

SOCIAL MEDIA AND REFLECTIVE THINKING:  
A CASE STUDY OF GENERATION Y BUSINESS STUDENTS

A DISSERTATION SUBMITTED TO  
THE FACULTY OF THE GRADUATE SCHOOL  
IN CANDIDACY FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY

PROGRAM IN RESEARCH METHODS

BY  
STACY NEIER  
CHICAGO, IL  
DECEMBER 2014

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## ACKNOWLEDGMENTS

I wish to express the deepest gratitude for all the people who supported my dissertation process. My committee showed extraordinary dedication to my progress and invested so much to guide me. First, Dr. Terri Pigott showed me what it means to be a methodologist. She helped me to realize how common ground truly exists amongst the many types of research designs available within social sciences. Her appreciation for and practical approach to research motivated me during coursework and dissertation, and I am confident I am a better educator because of her encouragement. Next, Dr. Leanne Kallemeyn helped me to realize how powerful case study can be. Her presentation of the method instantly intrigued me during Fall Semester 2012, and it was an honor to have her expertise to guide this study. Finally, Dr. Linda Tuncay Zayer has been a mentor to me since 2005. Her approach to scholarship embodies such exemplary vision, inquiry, and empathy. I admire Linda as a researcher, educator, and leader. In short, I had a dream committee.

Additionally, I express gratitude for friends and colleagues who influenced my complete experience as a PhD student. The Department of Marketing and the Quinlan School of Business at Loyola University Chicago were instrumental in my completion of this project. Further, Dr. Kitty Dickerson, Professor Emerita at the Department of Textile and Apparel Management at the University of Missouri, first sparked my interest in academics as an undergraduate. I would not have considered a PhD in education if it weren't first her investment in my time at Mizzou. Dr. Raymond Benton, Jr., Professor of

Marketing at Loyola University Chicago, supported my dual role as a Clinical Instructor and PhD student. His support of this project made it possible for me to balance teaching with coursework, and his unyielding push for quality inquiry motivates me to be a better educator for my own students. Mike Welch, Senior Executive Lecturer, also supplied constant wisdom, advice, and reinforcement when I simply needed to look at the big picture.

As this project finishes, my marriage to Matt begins. Matt was with me from the very start of the program and moved through any twist and turn to cheer me through to this finish line. As much as I adored being a PhD student, I am grateful for the opportunity to, with near simultaneous timing, close dissertation to open our marriage. Adequate words do not exist to describe Matt's contribution to this project.

Finally, Dr. Leigh Neier, my twin sister, stands as the most compelling and energetic figure that underscored my desire to pursue a PhD. If I can share a fraction of the influence with my students that Leigh shares with hers, I'll be overjoyed. I look forward to working with Leigh as a collaborator and colleague because when we are together, all is well.

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## CHAPTER ONE

### STATEMENT OF THE PROBLEM

Preparing Generation Y students to recognize complex issues in realistic contexts presents responsibilities and challenges for higher education faculties. These educators collaborate with Generation Y students as the Information Age (Leidner & Jarvenpaa, 1993) continuously builds boundless layers of information into online applications. The need to understand how to guide students' interactions with these complex, ambiguous online environments may help explain students' capacities to practice reasoned, reflective thinking. As noted by Peltier, Hay, and Drago (2005), "Students entering the business world often lack reflective thinking skills necessary for discovering insights through experience, necessary requisites to becoming lifelong learners" (p. 250). When educators can anticipate how Generation Y develops reflective thinking skills in an online environment, they may oversee ways to effectively help students extract relevant online evidence to support the development of their ways of knowing.

However, educators' decisions to incorporate appropriate online tools for students' interactions challenges these students' attempts to construct knowledge claims through online interactions. The decision about which online tools to integrate into courses brings the requirement to expose students to relevant, complex issues to properly support personal epistemology development (Baxter Magolda, 2004; Schommer, 1990).

Moreover, students are also challenged to recognize tentative evidence as appropriate to develop their ways of knowing given the uncertainty inherent to online environments.

In particular, the current environment for business educators also shows shifting challenges and responsibilities regarding how to effectively represent realistic, complex issues for Generation Y students' consideration. Business educators meet requirements of accreditation bodies like the Association for Advancement of Schools and Colleges of Business (AACSB) to primarily demonstrate the achievement of structured learning outcomes. The achievement of learning outcomes, however, does not address the quality of thinking or students' concepts of justification when facing unstructured problems not easily formatted for accreditation purposes and assessment instruments. In this environment, Generation Y students express uncertainty about the meaning and value of traditional education (Owens & Price, 2010) yet seek classroom environments that emphasize business fundamentals through real time application (Clark & Nelson, 2012; Welch & Bonnan-White, 2012). As a business discipline, marketing in particular simultaneously trials use of upgraded online environments as industry practitioners adjust goals and tactics of marketing strategies through trial usage of these same online tools (Granitz & Koernig, 2011; Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). Marketing curriculum adopts technology advances at a slower rate compared to industry practice (Welch & Bonnan-White, 2012), yet educators continually expect Generation Y students to professionally develop within an environment filled with unknowns and discontinuous change (Hill & McGinnis, 2007; Van Doren & Smith, 1999).

Moreover, social media, a collection of online tools and applications that emerged approximately twenty years ago (Kaplan & Haenlein, 2010), has achieved widespread use both in industry and marketing education. Expectations that Generation Y enter higher education with pre-existing, basic skill sets to effectively interact via social media aligns with the assumption of their generally favorable attitudes to learn in environments populated with technology (Dawley, 2009; Kennedy, et al., 2007). Therefore, educators' reasonably assume Generation Y may transition established personal social media use to academic use when engaged in a course that adopts experiential learning (Kaplan, Piskin, & Bol, 2010; Rinadlo, Laverie, Tapp, & Humphrey, 2013), which can be facilitated through social media. Anticipation of the nature of Generation Y's social media experiences, occurring during their formative years, provides educators a baseline of online activities upon which to begin promoting development of their ways of knowing during college years. Prensky (2001) outlines fast response rates to questions, ease of information access, and natural multitasking as behavioral characteristics likely manifest in Generation Y's social media experiences. Yet, research now begins to encourage the need for more in-depth understanding of the nuances of "a more complex mix of skills" revealed by Generation Y students (Kennedy, et al., 2007, p. 517).

What remains unknown is how Generation Y business students develop their personal epistemologies in context accessible through social media interactions in higher education. Instead of emphasizing how social media may help Generation Y students to reason and make claims, literature about social media emphasizes outcomes such as grades and engagement. Studies exist that show social media as detrimental for academic

achievement including decreased GPAs for social networking site users, particularly Facebook (Karpinski & Duberstein, 2010) and deficient student participation (Zahay, Eddy, & Kaufman, 2013). Literature about Twitter, widely considered as the leading social media tool for microblogging (Reinhardt, Wheeler, & Ebner, 2010), lacks consensus about what students achieve when interacting with the tool in academic environments. Research indicates Twitter's positive influence on GPAs (Junco, Heiberger, & Loken, 2011), and broad benefits range from self-reported mastery of course material, with emphasis on real-world examples, to the practice of skills anticipated for career development (Lowe & Laffey, 2011). Nonetheless, these favorable outcomes lack agreement with Welch and Bonnan-White's (2012) quasi-experimental findings that students who did not interact with Twitter reported increased levels of academic engagement compared to those students who interacted with Twitter. By adapting Krause and Coates' (2008) engagement categories to understand Twitter's role in student engagement, the control group of students "was significantly more academically engaged than the Twitter class" (p. 334).

### **Purpose of the Study**

The purpose of this study is to describe how social media interactions provide opportunities for Generation Y business students to practice assumptions of Reflective Judgment Model stages. Using King and Kitchener's (1994) Reflective Judgment Model, interactions with social media support investigation of students' capacities to use Reflective Judgment assumptions in Consumer Behavior, an advanced marketing course. Per King and Kitchener (1994), seven stages of Reflective Judgment organize the structure through which individuals form their processes of knowing. More specifically,

these sequential stages outline internal structures of personal epistemologies and concepts of justification. Within each of the seven stages exists a series of assumptions, and these assumptions suggest how a person reasons when operating within a stage. The seven stages align with three top-level categories of thinking. Pre-reflective thinking in Stages 1, 2, and 3 distinguishes individuals' failures to recognize uncertainty. Quasi-reflective thinking, characterized by Stage 4 and 5 assumptions, shows individuals' initial recognition of ambiguity as intrinsic to increasingly complex issues. Finally, reflective thinking requires use of Stage 6 and 7 assumptions to demonstrate that knowledge must be constructed in relationship to contexts. What unites pre-reflective, quasi-reflective, and reflective thinking stages is the overarching assumption that "knowledge is ultimately subjective" (King & Kitchener, 1994, p. 15).

Accordingly, Consumer Behavior, as an advanced marketing course, offers an appropriate context for this study's inquiry. Consumer Behavior introduces Generation business Y students to cultural, social, and perceptual variables about how consumers behave before, during, and after the consumption process. Interaction with Consumer Behavior course topics, compared to requisite 200-level course topics, holds potential to provide opportunities for Generation Y students to recognize complex issues. Furthermore, these topics, including personality, lifestyles, and decision-making, among others, frequently connect to updated headlines available via social media. Interaction with social media, specifically Twitter, provides students additional context through which to explore complex processes faced by consumers studied in Consumer Behavior. Also, juniors and seniors predominantly enroll in Consumer Behavior, so based on class standing, these students' previous academic experiences likely have readied them to

operate using reflective thinking assumptions not previously relied upon during less advanced courses.

However, per King and Kitchener (1994), quasi-reflective thinking using Stage 4 assumptions prevails in college-aged seniors. Realizing that college-aged seniors may complete advanced courses without fully developed reasoning skills signals concern for educators to understand Generation Y students' capacity to use assumptions of Reflective Judgment. Generation Y students' access to social media provides new contexts in which they may begin to use reflective thinking assumptions anticipated at Stages 6 and 7. Due to the requirement to use Stage 6 and 7 reflective thinking "in relation to the context in which [claims of knowledge] were generated," (King & Kitchener, 1994, p. 15-16), knowing how new contexts made distinctively available through social media and integrated into courses like Consumer Behavior provides motivation for educators to understand how students may think reflectively using social media interactions to support their knowledge claims.

### **Theoretical Framework**

This case study's purpose – to describe how social media interactions provide opportunities for Generation Y students to practice assumptions of reflective thinking stages – is appropriately framed by King and Kitchener's (1994) Reflective Judgment Model. The authors developed the Reflective Judgment Model to emphasize "developmental progression in people's assumptions about how and what they can know" (King & Kitchener, 1994, p. 13). The Reflective Judgment Model marks a shift from other stage models in the cognitive development literature (Broughton, 1978; Dewey, 1933; Fischer, 1980; Perry, 1970; Piaget, 1965). While aforementioned authors focus



stage models of cognitive development in intellectual domains that require inductive and deductive reasoning, the Reflective Judgment Model distinctly centralizes epistemology as its intellectual domain. Furthermore, King and Kitchener (1994) focus specifically on college age adults instead of the development of childhood epistemologies (Piaget, 1974). To do so, the Reflective Judgment Model purposely incorporates relevant, yet complex issues, for traditional college-aged students to use assumptions in a sequential order of stages to support the development of their personal epistemologies. When individuals are involved in attempts to resolve the “real uncertainty” (King & Kitchener, 1994, p. 11) about specific complex issues, the reasoning exercised by individuals to justify knowledge claims shows consistent use of assumptions within one of the model’s seven stages. Figure 1 shows the seven stages of the Reflective Judgment Model and further groups the stages into pre-reflective, quasi-reflective, and reflective thinking.

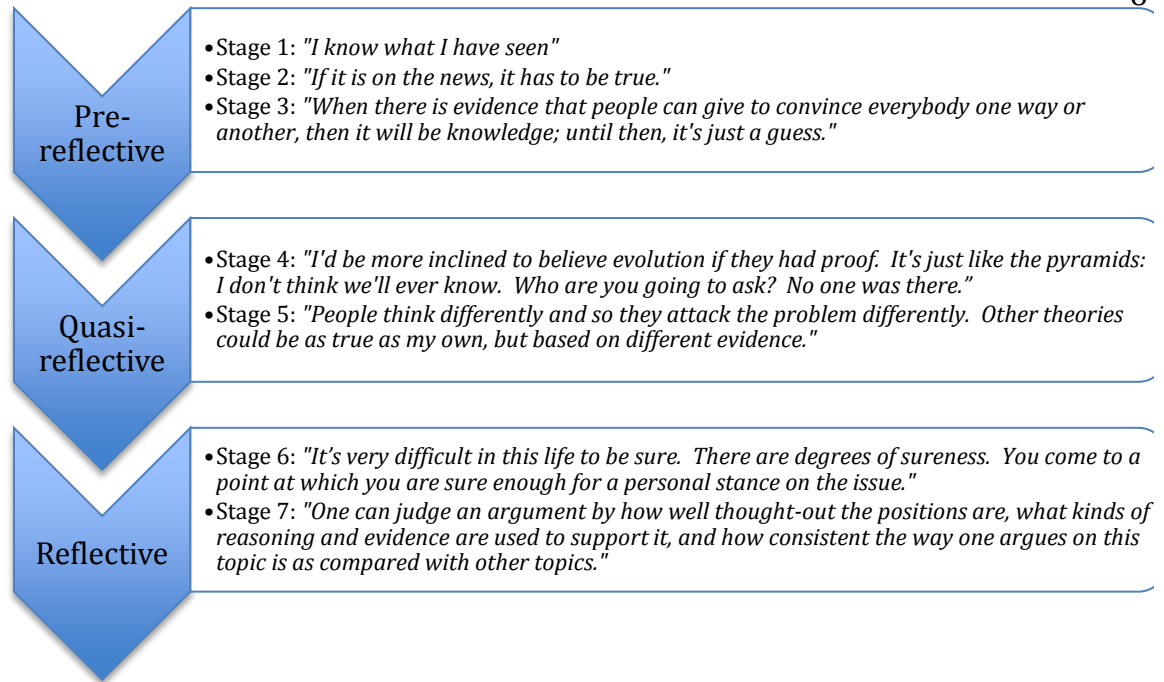


Figure 1. King & Kitchener's (1994) Reflective Judgment Model Stages. This figure illustrates this study's theoretical framework.

Figure 1 illustrates the expected pattern for the seven stages to occur. The goal of the model's general structure yields an overview of personal epistemological assumptions and "the relationship between the assumptions" (King & Kitchener, 1994, p. 45). The stage structure establishes that individuals rely on assumptions from the previous stage while preparing to exercise the next stage's assumptions. As individuals' personal epistemologies develop through these stages, their uses of assumptions become integrated to differentiate abstractions of knowledge, and accordingly, using the highest stages, they construct defensible judgments about complex issues. Consequently, individuals using pre-reflective thinking assumptions fail to acknowledge uncertainty in attempts to make knowledge claims. Pre-reflective thinking is also marked by an absence of evidence used to make these knowledge claims. When individuals use quasi-reflective assumptions, they accept uncertainty to be inherent to the knowledge claims they make. In doing so,

their claims, for the first time, show their beliefs about issues that are complex, or “truly problematic” (King & Kitchener, 1994, p. 11). The individual has differentiated quasi-reflective stages from pre-reflective stages by now acknowledging that knowledge is not absolute. As quasi-reflective assumptions integrate to support reasoning through reflective stages, individuals fully accept that knowledge must be constructed through actively grounding claims in context and evidence. Furthermore, openness to re-evaluation characterizes reflective thinking, so individuals operating through reflective assumptions recognize evidentiary contexts as dynamic.

King and Kitchener’s (1994) Reflective Judgment Model is an appropriate perspective for this case study’s theoretical framework due to one additional distinguishing feature. To understand traditional college-aged students’ epistemic assumptions, the Reflective Judgment Model designates a specific problem structure through which individuals interact to justify their ways of knowing. Wood (1983) defines problem structure as “the degree to which a problem can be described completely and the certainty with which a solution can be identified as true or correct” (p.) Accordingly, King and Kitchener (1994) include five standard problems to represent disciplines college-aged students experience, including psychology, business, and chemistry. Described as “ill-structured,” (King & Kitchener, 1994, p. 11), these problematic scenarios present to individuals conditions that inherently lack certainty, even amongst experts in the discipline.

Likewise, combining Consumer Behavior and the use of social media holds potential for Generation Y students to investigate the ill-structured issues unique to the course’s curriculum. Research advocates the Consumer Behavior course to be structured

as representative of experiential, real-world learning (Craciun & Corrigan, 2010; Morgan & McCabe, 2012; Petkus, 2000; Schewe, 1980; Titus & Petroschius, 1993), thus positioning the course to provide students dynamic contexts while exposing them to universal Consumer Behavior topics. Juxtaposing the ill-structured environment characteristic of social media (Rinaldo, Laverie, Tapp, & Humphrey, 2013) naturally extends the context available for Consumer Behavior students to attempt defensible judgments. Therefore, conditions this study seeks to investigate align with King and Kitchener's (1994) Reflective Judgment Model because the course provides a platform through which students interact with real-world contexts that directly impact how consumers make decisions in marketplaces. The contexts distinctively available in Consumer Behavior and updated via social media consistently adjust to reflect real-world environments, so issues that emerge from the course's structure may lack complete resolution, and yet, the Reflective Judgment Model accepts lacking resolution, especially amongst college-aged students. Understanding Generation Y's use of reflective thinking assumptions naturally aligns with what can be offered to students in a contemporary Consumer Behavior course.

### **Research Questions**

The purpose of this study and its supporting theoretical framework led to the development of two central research questions. These research questions, listed below, guided the design, data collection, and analysis of this study.

1. What evidence of pre-reflective, quasi-reflective, and/or reflective stages is demonstrated via social media interaction? How does social media interaction enable reflective thinking in an advanced marketing course?

2. How do students make judgments about ill-structured marketing problems when using social media?

### **Significance of this Study**

This study's significance is found in its ability to contribute to the fast-growing body of literature regarding academic uses of social media, specifically in marketing education. The growing interest to understand the role social media plays in higher education is in part driven by the rate of "generational" upgrades the online environment offers educators and students. Although new ways to consume online environments are void of "any specific technical update of the World Wide Web" (Kaplan & Haenlein, 2010, p. 61), shifts within functionality of online environments prompt investigation of, for example, nascent uses of social media to accommodate higher education objectives.

With these changes comes the potential to understand how personal epistemologies develop when using online contexts previously unavailable to construct knowledge claims. As higher education accepted the initial emergence of an online teaching and learning environment, Windschitl (1998) promoted the need for research investigating how students use online environments to facilitate inquiry; simultaneously, he encouraged the use of qualitative methods to understand what then constituted a Web 1.0, read-only interface. Characterized with similarities parallel to textbooks, overhead transparencies, and guest lectures, Web 1.0 offered an information source mostly validated by programming experts (Greenhow, Robelia, & Hughes, 2009). The Web 1.0 interface – allowing "only modest individual knowledge creation and sharing" (Greenhow, Robelia, & Hughes, 2009, p. 247) – upgraded to Web 2.0 in 2004 to accentuate read-and-write capabilities (Baumbach, 2009). This generation included

features designed for social networking, collaboration, self-expression, productivity, content tracking, virtual game and social worlds, among other relevant activities linked to technology (Granitz & Koernig, 2011; Kaplan & Haelein, 2010). Kietzmann et al. (2011) structured their social media ecology in the shape of honeycomb building blocks to position seven distinguishing features of social media. Each study identifies the Web 2.0 environment as prioritizing users who generate content over the content created within Web 1.0. This contextual difference between generations of online features additionally materializes by accommodating connectivity amongst users to decide on membership groups or to produce multiple types of content. Advances from Web 1.0 to 2.0 allow content to be packaged as photos, videos, comments, and ratings, amongst other forms and exchanged amongst individuals (Cormode & Krishnamurthy, 2008). Nonetheless, through growth of online features distinctive to first and second generation web-based technology (Kennedy et al., 2007), the suitability of online capabilities to facilitate learning and teaching remains unknown, and Windschitl's (1998) original endorsements for qualitative understanding of students' inquiry in online environments remains unaddressed.

The transition from Web 1.0 to 2.0 brought with it a surge in research interest that portrays subtle contradictions about the meaning and role of social media in the context of Web 2.0. boyd and Ellison (2007) emphasized “network” versus “networking” in defining the “emphasis and scope” of social network sites (SNSs) to accommodate three key traits: (1) the creation of users' profiles, (2) connections with distinct individuals who also created profiles, and (3) access to lists of profile connections curated by individuals, all within a “bounded system” (p. 211) Kirschner and Karpinski (2010) cite boyd and

Ellison's (2007) SNSs definitional criteria to understand the impact of Facebook on measures of college students' academic performance. Similarly, Lampe, Ellison, and Steinfeld (2008) recognize the abovementioned characteristics of SNSs yet assign social media to a broader category referred to as "social computing systems" (p. 721). Despite recognition of boyd and Ellison's (2007) criteria within the literature, Beer (2008) suggested the definition be revisited to use Web 2.0 as an "umbrella term," (p. 519) thus combining SNSs and Web 2.0 into a single abstraction. He noted the need to broadly capture "a series of categories" (p. 519) amongst web applications to enhance the analytical value held by a refined definition.

Conversely, studies exist that eliminate a definition of Web 2.0, social networks, or other relevant technological context. Instead, authors espouse specific sites without delimiting the role of sites as associated with a broader range of available web-enabled tools. Specifically, recent studies about the benefits of Twitter's functionality as a marketing and pedagogy tool bypass defining Twitter's features as congruent to other Web 2.0 tools that also offer interactivity (Honeycutt & Herring, 2009; Meier, Elswailer, & Wilson, 2014; Rinaldo, Tapp, & Laverie, 2011). An absence of definition may be linked to the near ubiquity Twitter has achieved with 255 million active profiles (Twitter Inc., 2014). However, this study's significance provides another contribution to established attempts outlined in the literature to delineate how social media may build foundation to prepare for effective use of the complex context to be housed in Web 2.0's generational successor.

Recent research also reaches the mutual interest Beer (2008) encouraged in response to boyd and Ellison's (2007) SNSs definition. Specifically, Kaplan and Haelein

(2010) stress concepts like social media and Web 2.0 have prompted interchangeable meaning, thus leading practitioners and academic to lack clarity. They refine Web 2.0 as an “ideological and technological foundation” (p. 61) through which to support how individuals use features of social media. By shifting the importance of the type of content posted (Cormode & Krishnamurthy, 2008) to operationalize User Generated Content (UGC) as “the sum of all ways in which people make use of Social Media” (p. 61), the authors advance to define social media to combine complex context provided by Web 2.0 and UGC. Accordingly, social media becomes “a group of Internet-applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (Kaplan & Haenlein, 2010, p. 61). The importance of this definition, in the context of this study’s significance, is found in its implied use within the literature. For example, although Rinaldo, Tapp, and Laverie (2011) do not define social media to frame their Twitter study, the authors promote their selection of the tool through explicit statement that, “Learning by doing fits well with Web 2.0 tools, especially social networking tools” (p. 194). Greene, Muis, and Pieschl (2010) contend that computer technology supports how a learner accumulates knowledge even when environments were not purposefully created for academic purposes. This study’s attempt to integrate social media, per Kaplan and Haenlein’s (2010) definition, as a tool through which the Reflective Judgment Model may be promoted is important to set a foundation for cognitive development within the capabilities of Web 2.0, realizing online features experience continuous enhancements.

Therefore, emergence a third generation of online technologies also highlights this study’s significance. Marketers in industry have begun to ready their practices for



nascent opportunities associated with Web 3.0, yet the marketing education literature is silent in initial investigation about progression explore Web 3.0 capabilities' relationship to pedagogies. Also referred to as the Internet of Things (IoT) or the semantic web, Web 3.0 "concentrates on identifying the meaning of content" (Wheeler, 2012) through a user's boundless movement amongst not only social connectivity, as distinguished by Web 2.0, but also information connectivity. As educators press for their Generation Y students to construct knowledge claims in complex environments including social media interactions, the online environment itself advances to intelligence as a more sophisticated form of knowledge. Given scarce research about Web 3.0 in marketing education coupled with the Reflective Judgment Model's requirement for ill-structured problems, understanding how online contexts provide social media interactions through which Generation Y students may practice reasoning becomes important to grasp prior to widespread adoption of the Internet's third generation capabilities.

While it is not plausible to understand, through the scope of this study, what social media networks or Web 3.0 features might exist when Generation Y exits its higher education experiences,, observations of Generation Y's social media interactions and reflective thinking patterns may allow more effective adjustments to pedagogy before members of future generations enroll in higher education.. Additionally, describing Generation Y's reflective thinking patterns in a Web 2.0 environment now enables educators themselves to practice reflective thinking about effective pedagogical choices. The significance of this study motivates educators to query their own beliefs about pedagogical choices in complex contexts in relationship to fast moving technological generations and slow moving personal epistemology development.

## Chapter Summary

Generation Y students and higher education faculties collaborate within a challenging online environment with access to endless amounts of information. The environment favorably provides students with real-world context yet challenges them to effectively use the context to construct knowledge and, in turn, develop their personal epistemologies. Educators are also challenged to select appropriate online tools to present appropriate contexts that expose students to complex issues. Moreover, the rate of adoption of these technologies by educators lags behind industry and can misalign with goals universal to the assessment environment in business schools. Nonetheless, the goal to prepare Generation Y students to reason and construct knowledge claims remains core to educators' responsibilities.

However, what remains undetermined are ways of knowing students demonstrate when social media is made available for academic interaction. Accordingly, King and Kitchener's (1994) Reflective Judgment Model provides the theoretical framework for this study. The seven stage model, grouped by assumptions within pre-reflective, quasi-reflective, and reflective thinking patterns, requires individuals to recognize problems as ill-structured, whereby individuals do not reach resolution with great certainty. Consumer Behavior, an advanced marketing course, aligns with the Reflective Judgment Model in its ability to incorporate topics subject to ill-structured problems. Furthermore, the course supports the integration of social media interactions to provide additional context in which to position relevant ill-structured problems.

This study's significance contributes to the fast-growing body of literature regarding academic uses of social media, specifically in marketing education.

Furthermore, it outlines the need to understand generational characteristics of students and web-based technology. Generation Z's emergence to replace Generation Y in higher education parallels Web 2.0's approaching transition to Web 3.0. Accordingly, educators interested in how they might support their students' personal epistemology development in these dynamic contexts may find value in this study.

### **Organization of the Study**

In Chapter 1, I stated the problem as the impetus of this study. I described the purpose, outlined the research questions, and introduced King and Kitchener's (1994) Reflective Judgment Model as the theoretical framework. I also explained the significance of the study.

The remainder of this study is organized into an additional four chapters. Chapter 2 reviews existing literature about social media, social media in education, and learning theories related to the theoretical framework. Chapter 3 describes case study methodology and procedures followed. Chapter 4 analyzes data and discusses findings. Chapter 5 provides a summary, conclusions, and recommendations. A bibliography and appendixes close the study.

## CHAPTER TWO

### LITERATURE REVIEW

An array of social media options faces marketing educators who are interested in adopting the tools as pedagogy to support students' cognitive development in the domain of personal epistemologies. First, I broadly address social media. In particular, the social media literature suggests a range of definitions with similarities yet subtle differences. Such differences categorize functions for both collaboration with groups and individual uses. Next, I describe the adoption of social media in higher education. Mixed definitions of social media led educators to adopt multiple tools capable of collaboration and individual uses. In this context, I also describe Generation Y students' assumed social media uses. Specifically, literature indicates that Generation Y students demonstrate inconsistent behaviors. Finally, I describe cognitive development models that emphasize personal epistemology as an intellectual domain. King and Kitchener's (1994) Reflective Judgment Model provides this study's theoretical framework, yet I also include discussions of Perry's (1970) Intellectual Scheme, Baxter Margolda's (1992) Epistemological Reflection Model, and Schommer's (1990) Epistemological Questionnaire.

The review of studies underscores the need for marketing educators to understand how social media may enhance the type of thinking Generation Y manifests in an online environment that inherently exposes these students to complex, ill-structured problems. Students and educators show notable willingness to attempt social media use in course.

design, yet the role social media plays to advance students' views and justifications of<sup>19</sup> knowledge is unknown.

Furthermore, the nature of the studies reviewed reveals opportunity for this study's methodological contribution. Analysis largely depended upon self-reported data collected by survey instruments. Additionally, due to the relatively new focus on social media as an area of research interest, literature also included narratives of how to use social media based on descriptions lacking empirical observations. Understanding early contributions to an area of growing interest for marketing educators supports clearer direction of how to associate existing goals for students' cognitive development with potential held by social media tools.

## **Social Media**

### **Defining Social Media**

Understanding how to operationalize social media is an opportunity that challenges its effective use both in marketing industry and marketing education. As Chapter 1 indicated, this study adopts the definition of social media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (Kaplan & Haenlein, 2010, p. 61). Yet, the literature suggests a variety of other classifications each with idiosyncratic differences. Botha, Farshid, and Pitt (2010) define as social media as “media designed to be disseminated through social interactions between individuals and entities such as organizations” (p. 44). Kilian, Hennigs, and Langer (2012) equate social media to “social software” (p. 114), which has emerged as a contrast to traditional

media. Here, the aim of social software is to connect communities of consumers who freely post messages containing personal information.

Social networking software, or SNS, also shows subtle definitional differences. Granitz and Koernig (2011) group social media within social networking software yet more broadly include SNS with technology tools within the Web 2.0 context. This is in contrast to Kaplan and Haenlein's (2010) classification of social networking sites as under the umbrella of social media. boyd and Ellison (2008) advocated for SNSs to encompass three main tenants including availability of a users profile, an archive of shared profiles amongst users, and ability to associate with and through users in the same bounded system. Further, Beer (2008) states that discrepancies between definitions – although seemingly minor – relate to the difficulty industry and education experiences to maintain the dynamic pace of technological changes that change behaviors within social networking sites. Specifically, he argues that too broad a definition limits the aim of how such classifications provide distinct process orientation. Accordingly, efforts to operationalize a definition have led to encounters of “mutating social networking sites” (Beer, 2008, p. 519). Accordingly, industry and education alike face challenges to find appropriate boundaries in which to justify their use of social media. As stated by Kaplan and Haenlein (2010), “there is no systematic way in which different social media applications can be categorized” (p. 61).

### **Social Media for Collaborative and Individual Uses**

Much like nuanced differences in accepted definitions, social media offers a multitude of subtle differences in how it is used. Given this study adopts Kaplan and Haenlein's (2010) definition, these authors primary focus on collaboration as principle

functionality of social media. Granitz and Koernig (2011) emphasize collaboration that allows users to originate content or make other adjustments. Kaplan, Piskin, and Bol (2010) investigate the effectiveness of blogging as a collaborative social media tool. Although blogs can be classified as a tool for self-expression (Granitz & Koernig, 2011), blogging also leads to enhanced collaboration when students are allowed to blog about “anything marketing” (Kaplan et al., 2010, p. 50). Payne, Campbell, and Piercy’s (2011) study lacked explicit reference to collaboration, yet findings suggest students’ would remember working with their group members nearly twice as much as “social marketing lessons learned” (p. 212) when they created online video files. When students collaborated through social tagging within a blogging project, group knowledge formation and classroom community strengthened (Yew, Gibson, & Teasley, 2006). Social media’s collaboration functionality offers, therefore, a reason to consider adoption even in the presence of an evolving definition.

Yet, collaboration as a central utility of social media lacks mutual exclusivity with other functions social media offers. Although Kietzmann et al. (2011) point to sharing, conversations, and relationships as three key functionalities that differentiate social media, each act requires interaction with other users profiles contextualized in social media. Similarly, Kilian et al. (2012) embed functionality that resembles collaboration into their typology of media use motives. Accordingly, “integration and social interaction” (p. 116) imply outcomes including conversations and connections.

While collaboration extends to users taking advantage of functionality to grow online and offline relationships (Lampe, Ellison, & Steinfeld, 2008), additional functionalities suggested by Kietzmann et al. (2011) and Kilian et al. (2012) juxtapose

the collaboration utility with functionality that centralizes individuality in social media usage. Within the context of collaboration, social media also functions to provide context in which self-identity (Selwyn, 2009), self-expression (Grantiz & Koernig, 2011), and reputation (Kietzmann et al., 2011) underscore outcomes of using social media. Each of these functions focuses on the individual's representation in a social media environment. Acknowledging that individual uses constitute an essential function used in conjunction with collaboration functions suggests social media tools offer dichotomous uses to promote social capital (Steinfeld, Ellison, & Lampe, 2008).

### **Social Media in Higher Education**

Understanding that social media offers a range of definitions and functionalities potentially lead educators to cautiously integrate social media into pedagogical decisions. Emphasizing usage that allows educators and classroom communities to simultaneously interact as collaborative groups and as unique individuals may appeal to educators and students alike. However, the literature depicts social media usage as resulting in gradient of outcomes that are not always positive. Perhaps unsurprisingly, research about social media's integration in higher education has prioritized understanding relationships between academic achievement, measured by grades and GPA, and use of social media. Most notably, Kirschner and Karpinski (2010) reported lower mean GPAs and number of hours spent studying for users of Facebook. However, Kirschner and Karpinski (2010) results regarding hours of internet use contrast with findings about academic achievement and general media usage, not restricted to Facebook. When investigating self-reported GPAs and intensity or type of social media usage, no relationship was detected (Hargittai



& Hsieh, 2010). Again, the current literature and the range of outcomes it illustrates provide a valuable platform to contribute the current study's design.

Higher education literature regarding the use of social media shows educators face multiple decisions to effectively integrate these tools for teaching and learning. Although educators attempt to connect their social media adoption to collaboration and identity utilities, educators must also decide amongst a variety of specific tools to implement. Revisiting Granitz and Koernig (2011), the authors provide examples of tools including conventional reference to Facebook, MySpace, and Twitter. Yet boyd and Ellison (2007) support the growing importance of “niche communities” – like MyChurch, Couchsurfing, and BeautifulPeople – propagated through emphasis on users instead of users' interests. Educators unsure of the specific social media tool to adopt may no longer need to rely on the breadth of features offered by tools designed for broad audiences. Specialized courses that more deeply study a subject area may be better suited to adopt usage of a niche site that offers streamlined focus. Nonetheless, this presents another decision. Educators interested in adopting niche social media tools face tradeoffs that imply how to adopt a narrow lens to their students given the use of niche sites may lack familiarity. Further, niche sites may foster interpretation of discrimination amongst users whose characteristics more effectively align with the sites' “elite” (boyd & Ellison, 2007, p. 218) user bases.

The decision educators face between mainstream or niche sites is again met with a growing body of literature that trialed specific social media tools in the classroom. Facebook (Lampe, Ellison, & Steinfeld, 2008; Lampe, Wohn, Vitak, & Ellison, 2011; Steinfeld, Ellison, & Lampe, 2012), LinkedIn (McCorkle & McCorkle, 2012), YouTube

(Payne, Campbell, Bal, & Piercy, 2011), wikis (Cole, 2009; Cronin, 2009; Lending, 2010), and Google+ (Erkollar & Oberer, 2013; Zahay, et al., 2013) were implemented for in higher education classrooms. Educators justified use of the sites to support the diverse learning communities in today's higher education classrooms. Nonetheless, the range of branded options available for educators to decide amongst, in addition to lacking clarity about the appropriate classroom contexts that support these tools, leaves uncertainty about how to best position social media with today's Generation Y learners. Educators' various attempts to champion specific tools indicates willingness and openness to adjust pedagogies, yet to date, making effective adjustments lacks substantiation, resulting in outcomes that reinforce difficult use (Kaplan & Haenlein, 2010), thus making educators feel like they "miss the train" (Kaplan & Haenlein, 2010, p. 68).

**Twitter in education.** In particular, studies regarding Twitter's adoption as a social media tool suitable for pedagogical practices emerged within the literature. Twitter's commercial and academic popularity continually increases due to its positioning as a channel for communication, thought-leadership, and interaction amongst "government agencies, public officials, businesses, and educators" (Hargittai & Litt, 2012, p. 2). When used in marketers' promotional strategies, Twitter is real-time feed to connect current and potential consumers to relevant product launches, exclusive events, and sales promotions (Rinaldo et al., 2011). Yet, while some professionals believe in Twitter's social power to engage consumers, others consider it noise that detracts from consumers' in other promotional channels (Honeycutt & Herring, 2009). This continuum of sentiment for industry use of Twitter, located around "love it or leave it" extremes, transfers to Twitter's pedagogical reputation. As marketers in industry attempt

to generate consumer interest in product development or sales events, marketing educators use Twitter to generate interest amongst the students currently enrolled in a course or to elevate the reputation of the course for future students (Rinaldo et al., 2011, p. 195). Thus, marketing educators are using Twitter as a communication tool to promote their courses as a product that offers a modern academic experience. In short, some marketing educators are behaving like marketers in industry.

Similar to the spectrum of accepted definitions for social media, Twitter's classification as a microblog differentiates its use amongst other social media tools. Other microblogs, like Jaiku and Pownce (Ebner & Schiefner, 2008) exist, yet Twitter dominantly captures the interest of both the industry and the academy (Buettner, 2013; Gao, Luo, & Zhang, 2012; Junco, Elavsky, & Heiberger, 2012; Lin, Hoffman, & Borengasser, 2013; Reinhardt, Wheeler, & Ebner, 2010). According to Clarke and Nelson (2012), "a microblog combines blogging and instant messaging within a social media environment" (p. 29). Literature also differentiates microblogs to require limitations on the number of characters included in one post or message (Botha et al., 2011). Microblog is an important label because it emphasizes the simplicity of Twitter's utility in large lecture style courses (Welch & Bonnan-White, 2012). The straightforwardness of only two functions – IMing and blogging – allows clearer communication by the instructor to initiate student response. Greater course enrollment numbers (e.g. a large lecture section) may lead to preference for fewer social media features. Basic social media functionality offered via Twitter, therefore, minimizes burden on faculty instruction as well as the learning curve students may experience with use of the tool (Buettner, 2013). This implication is particularly relevant considering the current perception of large lecture

courses. Research about the possible obsolescence of courses designed as “chalk and talk” lectures (Owens & Price, 2010, p. 128) shows students hold faculty increasingly accountable to demonstrate value of technology enhancements to large lecture courses (Owens & Price, 2010). Twitter capabilities potentially address these trends in course delivery. What this study seeks to contribute to the literature is an understanding of how a microblog tool with basic features may be used to deepen cognitive development in the context of a relatively large course.

Fundamentally, Twitter, as a microblog, benefits pedagogy through its real-time accessibility. Students are increasingly impressed with Twitter’s speed to diffuse messages during class sessions (Sacks & Graves, 2012). Highlighting “contemporary examples as they occur” (Lowe & Laffey, 2011, p.185) is a popular way to demonstrate Twitter’s benefits for marketing students. This exercise captures “a more up-to-date course with better linking between theory and practice in a contemporary manner” (Lowe & Laffey, 2011, p.185). Instead of asking students to purchase costly textbooks with outdated examples, marketing educators guide students to see examples occur via Twitter in real-time. Dismissing the perceived risk of adding yet another distraction into course materials, Welch and Bonnan-White (2012) report outcomes from adding a Twitter feed to the border of PowerPoint presentations for a large, lecture-style course. Instead of causing interferences during the instructor’s lectures, the “backchannel” feed is encouraged as “possible avenues to increase enjoyment and engagement using Twitter in the undergraduate lecture hall” (Welch & Bonnan-White, 2012, p. 341). What educators need to understand, however, is whether exposure to industry headlines in real-time via

social media stimulates more than enjoyment but also enables ways for students to develop patterns to reason about the headlines yielded through Twitter.

**Functionality of Twitter.** Like other social media tools, Twitter's functionality seeks to develop collaboration and individual uses (Lowe & Laffey, 2011; Rinaldo et al., 2011). However, literature also highlights the importance of engagement as an important function Twitter provides. Taylor (2011) points to use of technology-enabled devices in marketing courses as producing a "significant hurdle" (p. 74) those educators interested in engagement must overcome. In particular, Welch and Bonnan-White (2012) attempt to verify engagement and academic success via Twitter through a measure validated by Krause and Coates (2008). Academic engagement is one of five engagement measures asked of students in lecture style Anthropology and Sociology sections. Researchers also investigate levels of "engaged with their peers," "intellectually engaged," and "engaged beyond the classroom" (p. 330). Each construct seeks to connect Twitter to overall engagement in the course. Analysis points to the control group, the class section that did not engage in Twitter, as significantly more academically engaged than the course that used Twitter (p. 334). Although students in the experimental group enjoyed using Twitter, they "were significantly more likely to perceive themselves as academically engaged than those who did not enjoy Twitter" (p. 335). Despite use of a validated engagement scale (Krause & Coates, 2008) inclusive of academic and intelligence items, Twitter's capacity to develop judgment and reasoning remains undetermined: the quality of the students thinking is unaddressed. Instead, verifying enjoyment by these student participants instead addresses students' customization preferences, a manifestation of anticipated behavior accepted within Generation Y norms (Tapscott, 2009). Net

Generation students expect courses to be customized for their enjoyment, not necessarily their expectations for cognitive development. Using Twitter for in-class enjoyment enhances amusement but is unknown to develop students' knowledge and reasoning skills.

Using Twitter to promote in-class engagement comes with mixed acceptance and even rejection by both students and faculty. Despite potential usage benefits for all classroom stakeholders, Twitter adoption experiences continued resistance. Per Zahay et al. (2013), "social media usage in the classroom seems to develop over time ... and it takes in some cases most of the semester for students to 'warm up' to a particular technology" (p. 13). It is not uncommon for students to completely avoid Twitter in the long term. Nemetz, Aiken, Cooney, and Pascal (2012) removed all items on their survey instrument relating to Twitter after no pretest respondents indicated Twitter was used consistently (p. 21). According to Lowe and Laffey (2011), Twitter is perceived by students as "just another technology" (p.186). This aligns with findings from Hargittai and Litt (2011) indicating less than a fifth of student participants' self-reported Twitter use (p. 11). The concern that students will "question the relevance and value of Twitter relative to other alternatives" (Lowe & Laffey, 2011, p.186) undercuts faculty decisions to supplement conventional course content with Twitter. Moreover, less than five percent of all university faculty use Twitter (Rinaldo et al., 2011, p.195). Accordingly, mixed reporting of engagement levels by both students and faculty represents opportunity to shift understanding of how Twitter may more systematically support other important outcomes in higher education.

## **Summary of Social Media**

Social media's quick rise to prominence brought with it a number of attempts to define the nature of this phenomenon, popular in both industry and education. While definitions largely resemble one another, minimal distinctions have led to mixed understanding of what functionality social media includes. In particular, uses of social media broadly encompass collaboration amongst users of social media or distinguish traits of individual users. Moreover, Twitter, classified as a microblog, shows particular adoption by educators in spite of mixed acceptance by students in classroom contexts.

### **Characteristics of Generation Y Social Media Users**

The range of definitions, functionality, and tools signals decisions and implications for educators to consider about pedagogical choices involving social media. This spectrum of considerations facing educators is also met with the need to understand the current generational cohort of students in higher education classrooms. The motivation to shift pedagogy choices to match Generation Y's assumed social media needs presents an attractive opportunity to potentially enrich students' thinking capabilities. Interestingly, faculty and Generation Y students share inconsistent usage of social media in higher education, so the "digital divide" (Hargittai, 2002) between educators and students is not as wide as once hypothesized.

Accepted assumptions about Generation Y students prominently align with expectations of the "Net Generation" (Tapscott, 1997) or "Digital Natives" (Prensky, 2001). The ongoing presence and availability of technology and technology-enabled applications defines the commonality of this cohort. Generation Y students, largely considered to be born between 1980 and 1994 (Kennedy, et al., 2007), have experienced

a lifetime of digital and Internet developments. Accordingly, it follows that a strong relationship with social media's functionality and tools developed and sustained. Selwyn (2009) showed seventy-six percent of students surveyed about associations with Facebook usage practiced maintenance of a user profile. Despite ongoing maturation of Facebook, students with user profiles spent stable amounts of time to maintain their online relationships (Lampe, Ellison, & Steinfeld, 2008). Yet, students do not consistently behave when they encounter social media. Per Hargittai and Litt (2011), Generation Y's inconsistent social media patterns observed through multiple years do not adequately demonstrate the assumption that Generation Y is constantly "on" social media. Again, discrepancies in the literature suggest educators bring particular consideration to framing social media within pedagogical decisions. Educators may instead draw their attention both to the assumed presence of notable absences of behaviors expected by Generation Y students.

As additional support to enhance educators' understanding about characteristics of Generation Y students, a typology of social network site (SNS) use (Hargittai & Hsieh, 2010) address students' virtual lifestyles to live and study. As previously discussed, reconciling multiple social media definitions bring challenges for effective in-class use. As such, the authors examine the relationships between "Use Diversity" (or number of SNSs used) and Use Frequency. The resulting typology categorizes use patterns exhibited by "Dabblers, Samplers, Devotees, and Omnivores" (p. 518-519). Dabblers (9.2%) sometimes visit one social network site; devotees (32.9%) often visit one social network site. Samplers (4.4%) sometimes visit more than one social network site; omnivores (45.3%) often visit more than one social network site. This suggests that educators might



be challenged early in class interactions to quickly determine if their courses are composed of students who are willing to integrate multiple social media tools or alternatively, who are open to greater usage intensity within a single tool. Instructors who choose to bring social media into the classroom have very little time to assess their students' characteristics and match that assessment to an effective choice about social media. The typology provides a guideline of possible social media tendencies demonstrated throughout the academic term. What is unknown through these findings, however, is how personal epistemologies may or may not develop in the context of social media use diversity and frequency.

The decision to adopt social media for pedagogical use with Generation Y students also merits understanding of the knowledge these students possess regarding the sites. Particularly, the language associated with the social media mutations (Beer, 2008) leaves room for misunderstanding amongst Generation Y and therefore perpetuates lacking uniformity in their digital native behaviors. Additional findings from Hargittai and Hsieh (2011) provide a new lexicon through which educators may more effectively communicate with Generation Y students. Students consistently indicated high levels of understanding for “reload,” “favorites,” “bookmark,” and “advanced search.” Each term is browser related, thus signaling agreement that information-seeking happens online. Seeking information amongst social media usage is congruent with other studies (Kaplan & Haenlein, 2010; Kilian et al., 2012; Granitz & Koernig, 2011). Terms with the lowest understanding include “bookmarklet,” “cache,” “widget,” “phishing,” “malware,” “social bookmarking,” and “RSS.” Medium-understanding levels reported for “tagging,” “tabbed browsing,” and “wiki” indicate gaining momentum. Terms with low- and medium-

understanding levels are sources of both opportunity and challenge for educators despite recognition of functionality amongst other studies (Granitz & Koernig, 2011; Kaplan & Haenlein, 2010). For example, high levels of understanding shown for “favorites” and “bookmarks” allow educators to more easily teach less understood terms like “social bookmarking” and “RSS” because these four terms are complementary in functionality (Granitz & Koernig, 2011). Amongst the varied levels of understanding associated with terms, the current study aims to contribute enhanced understanding of the ability of Generation Y students to express reasoning and connect evidence through use of social media’s context, including terms such as those discussed above.

### **Cognitive Development and Social Media**

Thus far, I have discussed the variety of social media definitions represented in the literature. Additionally, I associated the definitions to a variety of functionalities, and in particular, I emphasized utilities supporting the need for collaboration and individual identity formation. I provided a brief overview of social media usage in higher education and despite mixed acceptance, I specifically highlighted Twitter as a tool representative of widespread adoption into higher education environments. I also described the need for educators to recognize the characteristics of Generation Y students. Acknowledging that some Generation Y social media usage behaviors appear contradictory to generally accepted digital native (Prensky, 2001) behavioral patterns explains implications when considering use of social media in higher education.

I shift now to connect the preceding review with an examination of cognitive development literature. Given the aforementioned literature, what remains unknown is an understanding of the relationship between Generation Y students’ cognitive development

patterns and how these students use social media in higher education. In particular, the cognitive development models emphasizing research in the intellectual domain of personal epistemology yield opportunity for understanding in the context of social media. Based on a review of frameworks considered paramount within the personal epistemology domain, I assert King and Kitchener's (1994) Reflective Judgment Model as the most appropriate for the description of Generation Y's patterns of reflective thinking within a social media context.

### **Perry's Intellectual Scheme**

Perry's (1970) Intellectual Scheme is a common influence amongst the principle cognitive development theories in epistemology pertaining to college-age students, now including Generation Y, to be discussed. The structure of Perry's (1970) Scheme follows a hierarchy model organized into nine positions. Per Perry's Scheme, a student interacts with position and place as a "naive epistemologist" (Ryan, 1984, p. 248) who moves through a fixed sequence of cognitive stages in coming to a mature understanding of intellectual and ethical discourse (Ryan, 1984). The term *position* strategically emphasizes the journey of intellectual transformation the student follows. Specifically, position lacks a fixed duration indicating how long the learner will be in position (Love & Guthrie, 1999). This view allows students to flexibly move to new positions as they individually assign meaning to their worlds. Furthermore, a position is analogous with the *place* from which a learner sees the world (Love & Guthrie, 1999). Movement amongst places supports students' range of development from acknowledgement of only discrete, dualistic, absolute truths to recognition that relativism relies upon a complex arrangement of contextual interpretations. Accordingly, dualism combines Positions 1 and 2 to address

knowledge as an Absolute truth. Here, students believe educators, who take the role as an all-knowing Authority, know the truth. Students experiencing dualism also lack tolerance for varying points of view because the responsibility to communicate the truth, and the only Truth, falls to their educators. Multiplicity, the second category encompassing Position 3, allows students' first interaction with another possible solution to construct meaning. Through multiplicity, students see right, wrong, and what is yet unknown. Although students acknowledge "legitimate uncertainty," multiplicity, per Perry (1970), captures excitement for students. Although answers are unknown, students commit to understanding that unknowns will eventually be known; their discomfort with ambiguity is short-lived as they progress to contextual relativism.

As the third category, contextual relativism, inclusive of positions five and six, marks students' initial recognition with their motivation to examine their thinking processes. As students cognitively work to unpack their views about the meaning of knowledge itself, their thinking processes depart from the expertise available only from the teacher as Authority during the preceding dualism positions. The learner grows into his or her role as an "active maker of meaning" and begins habitual operation of metacognition. Finally, commitment with relativism incorporates positions seven through nine. The overlap between contextual relativism and commitment is appropriate when Perry's (1970) Intellectual Scheme applies to undergraduate students as life-long learners who are required to make Commitments. Commitments may include the selection of career and vocation, lifestyle, and significant relationships.

Although Perry's Scheme garnered wide recognition for its contribution to cognitive development literature (Love & Guthrie, 1999) critiques of Perry's (1970)

Scheme regard its nine positions and the practicality of observing the stages in the classroom setting. Accordingly, efforts to divide the nine positions into four categories further demonstrates that Perry's (1970) Scheme aims to "reclaim teaching as a scholarly activity" (Moore, 2004, p. 59) such that educators may more readily attempt understanding of students' positions within the Scheme. Nonetheless, Perry's (1970) work presumes an inability of learners to make Commitment within the context of a single semester course. Therefore, Perry's (1970) Scheme presents a less appropriate lens through which to view the fast-moving pace of Generation Y's use of social media.

### **Baxter Margolda's Epistemological Reflection Model**

The Epistemological Reflection Model (Baxter Margolda, 1992), like Perry's (1970) Scheme, categorizes students' complex reasoning within four knowledge stages. These stages include Absolute Knowing, Transitional Knowing, Independent Knowing, and Contextual Knowing (Bock, 1999). Accordingly, Epistemological Reflection Model is differentiated from Perry's (1970) Scheme due to the roles each stakeholder in the cognitive development process expects to play. Learners, peers, and educators assume responsibility for interactions intended to construct meaning. Learners are assumed to foster a point of view about knowledge, so learners must work through each stage of the model to construct meaning about that knowledge perspective. Thus, personal epistemology results. Learning, in the Epistemological Reflection Model, brings learners and the teacher together to "jointly construct meaning" (Baxter Margolda, 1992, p. 380) about this knowledge. Because students and teachers simultaneously learn, educators' serve their best interest to recognize students as partners in personal epistemology development.

Critics of Baxter Margolda's (1992) model reason that too much emphasis is placed on roles and responsibilities between students and educators. She optimistically confirms understanding college students' cognitive development as the primary role of educators, yet problematic to her position is the range of priorities facing higher education faculties. Through advocacy for "rearranging these long-held assumptions about education," Baxter Margolda also seeks to demonstrate her personal epistemology. Purposely, Baxter Margolda (1992) admits her "underlying assumptions are not only unspoken but also often unconscious" (p. 393). Her readiness to share the changes she experienced as a learner has led reviewers to question her model's validity. For example, Welte (1997) queries if "students are being validated as knowers, or are their ways of knowing being validated?" (p. 201). Yet, her discovery of her own personal epistemology does not diminish the process of students' epistemological discovery.

Although the work of Baxter Margolda (1992) builds upon the personal epistemology literature, its implications do not serve the purpose of this study. Baxter Margolda (1992) seeks to understand how patterns of personal epistemology develop between genders. Although Perry's (1970) model received critique about sampling a homogenous population that was predominantly male (Love & Guthrie, 1999), Baxter Margolda's (1992) sought to extend single-gender studies to describe patterns observed in how males and females approaching their ways of knowing. Generation Y literature reviewed for the purpose of this study did not reveal gender differences in social media usage. Accordingly, I considered the emphasis Baxter Margolda's (1992) Epistemological Reflection Model placed on gender patterns as less adequate for this study.

### **Schommer's Epistemological Questionnaire**

Marlene Schommer's Epistemological Questionnaire (1990) also strengthens the discussion of cognitive development models in the domain of personal epistemology. The purpose of Schommer's (1990) Epistemological Questionnaire aligns with previous research to better understand "students' beliefs about the nature of knowledge" (Schommer, 1990, p. 498). Similar to Baxter Margolda (1992), Schommer also seeks to build on Perry's (1970) Intellectual Scheme. Like Perry (1970), Schommer (1990) aims to emphasize the importance not of what undergraduate students know but how they know it. Students cautiously approach their point-of-view about knowledge construction as "all-or-none" (Schommer, 1990, p. 498) learning. This perspective aligns with the earliest positions in Perry's (1970) Scheme that represent a dualistic view. However, the Epistemological Questionnaire breaks from Perry's tradition about Commitment through discussion that students make "tentative commitments" to some ideas (Schommer, 1990, p. 498) in order to associate their personal epistemologies with comprehension. Here, learners are theorized to believe in "a system of more or less independent beliefs" (Schommer, 1990, p. 499). The system includes five distinct dimensions including the structure, certainty, and source of knowledge as well as the control and speed of knowledge acquisition. Moreover, the dimensions, derived from both Schoenfeld (1989) and Dweck and Leggett (1988), underscore the notion that some students believe learning is fixed while others perceive learning is incremental.

Schommer's (1990) factor analysis determined that epistemological beliefs effect comprehension and learning. However, through four factors – Fixed Ability, Quick Learning, Simple Knowledge, and Certain Knowledge – source of knowledge,

Schommer's fifth proposed dimension, lacks empirical validation within her studies (Hofer & Pintrich, 1997). Schommer's (1990) conclusion that "epistemological beliefs are influenced by home and educational background" (p. 503) sustains with acknowledgement that critical interpretation to advance conclusions extracted from information remains important.

For the purposes of this study, however, Schommer's (1990) methodology lacks an appropriate data collection instrument to study how students' social media experiences connects to personal epistemology development. To lead to factor analysis findings, Schommer (1990) administered a survey with sixty-three questions. Questions included demographic information but extended to "family structure, adherence to rules, and encouragement towards independence" (Schommer, 1990, p. 499). Each of these categories established foundation from which to describe associations between "epistemological beliefs and characteristics of the learner" (Schommer, 1990, p. 499). Yet, in the context of this study, adopting the Epistemological Questionnaire feasibly perpetuated the amount of self-report data available in the higher education literature regarding social media.

### **King and Kitchener's Reflective Judgment Model**

Finally, King and Kitchener's (1994) Reflective Judgment Model, the theoretical framework for this study, also contributes to the cognitive development literature. Again, the authors cite the work of Perry (1970) as underpinning their inquiry to develop a hierarchical learning model through which each preceding stage provides a valuable platform upon which successive stages form. Also similar to Perry's (1970) Scheme is King and Kitchener's (1994) assertion that traits of learners' reasoning independently fit



a singular stage. To structure their model, the authors integrate seven stages, or patterns, that each contain a set of assumptions through which students reason. These assumptions thusly identify with the stage of thinking within which the student operates and provide “internal structure” (King & Kitchener, 1994, p. 44). Although seven distinct stages exist within the Reflective Judgment Model, three principle stages organize the substantive distinctions that show growth patterns in individuals’ personal epistemologies. Pre-reflective thinking, inclusive of Stages 1 through 3, most closely resembles Perry’s (1970) dualism positions. Students who operate using pre-reflective thinking largely draw upon direct observations and assign meaning based on, for example, truths shared by authority derived from faculty. When students use quasi-reflective assumptions, within Stages 4 and 5, their personal epistemologies have developed such that they recognize lacking certainty based on opinionated perspectives. Students now realize that all knowledge lacks certainty, and use of idiosyncratic evidence from known perspectives signals interpretation as part of the process of knowing. Finally, reflective thinking encompasses Stages 6 and 7. During these most developed stages, students relate context and evidence to evaluate potential for resolution. Views of knowledge and concepts of justification develop to accept uncertain knowledge and press for evidence to judge as tentatively better.

The theoretical importance of the Reflective Judgment Model (King & Kitchener, 1994) addresses students’ views of knowledge and concepts of justification within the above-mentioned stages when faced with ill-structured problems. The context of social media naturally provides ill-structured scenarios for Generation Y students’ interactions. King and Kitchener’s (1994) model urges educators to effectively maximize all possible

means to support students' reflective judgment about complex problems by reinforcing ill-structured problems that have no right or wrong response. The range of uses and types of social media tools allow educators another way through which to provide the support advocated through Reflective Judgment stages. In order to examine these students' development of stages and interactions with ill-structured contexts, the Reflective Judgment Interview (RJI) provides an interview instrument to collect data from learners using standard probe questions. The authors also structured four standard ill-structured problems to investigate "individuals' fundamental assumptions concerning knowledge and how it is gained" (King & Kitchener, 1994, p. 100). Specifically, ill-structured problems represent multiple topics including the construction of the Egyptian pyramids, the formation of human beings, the administration of chemical food additives, and fairness in news representation. The authors extended these four problems to represent disciplines including business, psychology, and chemistry. The standardization allows reliable data to be collected across diverse groups of learners including traditional aged students, nontraditional aged college students, graduate students, and nonstudent adults (Lyons, 1990; Stearns & Crespy, 1995). Through nearly fifteen years of data collection using the RJI instrument, King and Kitchener (1994) conclude that reasoning with pre-reflective stages fades as it is replaced by increasingly distinct reasoning representative of reflective thinking. As such, developed personal epistemologies may be less apparent in college-aged students. Data from both cross-section and longitudinal iterations of RJI profile "the typical graduating senior" as developed to meet the "lowest rung of quasi-reflective thinking" (Hofer & Pintrich, 1997, p. 101).

## **Implications for Cognitive Development Theories and Social Media**

Building on the work of Perry's (1970) Intellectual Scheme, Baxter Margolda (1992), Schommer (1990), and King and Kitchener (1994) each manifest theoretical contributions to prompt educators' understanding of epistemology, or an "area of philosophy concerned with the nature and justification of human knowledge" (Hofer & Pintrich, 1997, p. 88). More specifically, these models aim to explain personal epistemologies as an area of cognitive development in which the focus shifts primarily to the process individual learners experience to develop their ways of knowing (Hofer & Pintrich, 1997; Colbeck, 2007). This study's unique contribution to the literature aims to bridge the current studies that independently encompass personal epistemology and social media use in higher education. Although each model reviewed offers explanations about the process of building personal epistemologies, King and Kitchener's (1994) Reflective Judgment Model provides distinction to describe learners' interactions with ill-structured conditions in the context of social media. Regarding the emphasis on ill-structured problems, social media's nebulous structure many times fails to demonstrate a discernible pattern. With its non-stop pace and convenience, social media holds potential to provide context for "an interaction between the individual's conceptual skills and environments that promote or inhibit the acquisition of these skills" (King & Kitchener, 1994, p. 18).

Yet, in spite of potential compatible qualities, personal epistemology as an area in the cognitive development literature is absent from the marketing education literature. One explanation for this absence may be established in the general pattern assumed of Generation Y students' personal epistemologies. Per Perry's (1970) Scheme, the most developed position and its associated resulting Commitments do not readily reveal

themselves to students enrolled in undergraduate education. Accordingly, studying Generation Y students' personal epistemologies in the context of social media delimits application of Perry's (1970) work to underscore findings only relevant to Positions 1 through 6. Similarly, King and Kitchener's (1994) Reflective Judgment Model suggests traditional college-aged Generation Y students, at best, represent personal epistemologies through exercise of quasi-reflective assumptions. This implies reflective thinking as an unlikely outcome, making for a less salient study. Although hierarchical learning models support in-class application by practitioners (Morgan & McCabe, 2012; Rinaldo et al., 2013), use of the hierarchical models implies findings may suggest students' inability to reason at optimal levels as much as their abilities to reason through use of less developed positions and stages. Acknowledging the stages Generation Y students exhibit during enrollment in prerequisite and advanced undergraduate coursework provides acceptance of students' capabilities where they are in their development. Their stages can thusly be associated with tools, like social media, to ready students to reason at successive stages. Interestingly, Stearns and Crespy (1995) specifically examine the learning hierarchy literature in support of recommending ways marketing educators may effectively integrate evaluation per King and Kitchener's (1994) hierarchy. The evident need for additional evaluation opportunities by marketing students, however, matched with an evident absence of tools to support the process.

Yet, this study seeks to explore associations between Generation Y students' personal epistemologies and social media usages. Given insufficient tools to support Stearns and Crespy's (1995) attempt to highlight ways of knowing, realizing the range of social media tools reviewed in the literature provides opportunity to extend what is

known about how higher education uses social media. This study's contribution, therefore, becomes how personal epistemologies may mature within an environment that offers social media.

In summary, the cognitive development literature emphasizes hierarchical learning models including Perry's (1970) Intellectual Scheme, Baxter Margolda's (1992) Epistemological Reflection Model, Schommer's (1990) Epistemological Questionnaire, and King and Kitchener's (1994) Reflective Judgment Model. Each of the later models references the importance of Perry's (1970) work in epistemology yet differentiates the hierarchy that personal epistemology develops within a range of positions, stages, and dimensions. Nonetheless, a noticeable absence between personal epistemology models and social media usage exists in the literature. This study seeks to connect the compatibility of these two nascent areas.

### **Summary**

The prevalence of social media in industry and education practices calls for a deeper understanding of how social media may potentially enhance cognitive development of Generation Y students. Social media, despite an array of accepted definitions, primarily leads to outcomes like enhanced group collaboration and individual identity formation. Attempts to use specific tools vary, yet Twitter continues to populate the literature with educators' attempts to adopt its microblog features. Concurrently, Generation Y students do not always demonstrate behavioral patterns expected of digital natives (Prensky, 2001). Moreover, personal epistemology models have not yet explored uses for social media to support Generation Y's advanced cognitive development. As marketing "continually reinvents itself" (Kaplan et al., 2010, p. 50) within the context of

social media, pressure grows to understand how to address Generation Y's preference<sup>44</sup> for social media while balancing the goal to develop students' quality reasoning. King and Kitchener's (1994) Reflective Judgment Model, differentiated by its reliance upon ill-structured problems, provides a framework to extend how students form and justify knowledge within an environment that encourages social media use.

## CHAPTER THREE

### METHODOLOGY AND PROCEDURES

The purpose of this study is to describe how social media interactions provide opportunities for Generation Y business students to practice assumptions of Reflective Judgment Model (King & Kitchener, 1994) stages. Generation Y students access information via social media tools, and yet, show hesitancy to connect their assumed basic understanding of social media to marketing scenarios that dynamically unfold within social media (Rinaldo et al., 2013). Social media, as a collection of interactive online tools (Kaplan & Haenlein, 2010), shows potential to be an integral part of students' personal epistemology development in the context of, in this study, business education. Accordingly, research questions are:

1. What evidence of pre-reflective, quasi-reflective, and/or reflective stages is demonstrated via social media interaction? How does social media interaction enable reflective thinking in an advanced marketing course?
2. How do students make judgments about ill-structured marketing problems when using social media?

#### **Research Design**

The proposed study utilizes case study design. Specifically, I used a holistic single-case design (Yin, 2009) to more deeply describe social media's capacity to support development of Generation Y business students' use of reflective thinking assumptions. The exposure to and creation of publicly available, user generated content (Kaplan &

Haenlein, 2010) via social media tools provides educators and educational researchers visibility to students' reasoning patterns. Realizing the use of social media tools as a form of experiential learning (Rinaldo et al., 2011) with important functionality offerings including collaboration (Granitz & Koernig, 2011) and identity expression (Kietzmann et al., 2011) provides students the potential to share their personal ways of knowing. Thus, this case study addresses a "contemporary phenomenon" (Yin, 2009, p. 88) within the real-life, naturalistic (Willis, 2007) context that social media in higher education offers.

Single-case design is justified by classifying MARK 310 Consumer Behavior, the unit of analysis, as a critical case. A critical case requires a theory with "a clear set of propositions" and "circumstances within which the propositions are believed to be true" (Yin, 2009, p. 51). The single-case design focused on a single course section, MARK 310 Consumer Behavior. Considered an advanced or upper-level undergraduate marketing course, the subject area, consumer behavior, allowed the opportunity to "confirm, challenge, or extend theory" (Yin, 2009) using King and Kitchener's (1994) Reflective Judgment Model. Although consumer behavior courses appear in the marketing education literature (Craciun & Corrigan, 2010; Morgan & McCabe, 2012; Petkus, 2000; Rinaldo, et al., 2011; Schewe, 1980; Titus & Petroschius, 1993), the design of this study as a critical case contributes a distinct perspective previously unexamined and holds potential to confirm cognitive development theory in the personal epistemology domain. The context of MARK 310 allows description of Generation Y business students' reflective thinking stages due to the topics included within the field of consumer behavior. Topics such as attitude formation, individual and group decision-making, and



motivation (Solomon, 2012) expose undergraduate students to theories that naturally surface ill-structured problems consumers face within marketplaces.

Accordingly, the views of knowledge and concepts of justification (King & Kitchener, 1994) of students enrolled in MARK 310 likely demonstrate patterns of quasi-reflective thinking indicative of Stages 4 and 5. As previously mentioned, data from both cross-sectional and longitudinal iterations of the Reflective Judgment Model profile “the typical graduating senior” as developed to meet the “lowest rung of quasi-reflective thinking” (Hofer & Pintrich, 1997, p. 101). Therefore, to develop propositional statements for this study, I acknowledged and accepted that Generation Y students likely reasoned using quasi-reflective thinking assumptions. Although assumptions within Stages 6 and 7 reflective thinking show the most developed personal epistemologies, traditional college-aged students tended to operate in lesser stages.

These quasi-reflective stages include the propositions listed below. These are the theoretical propositions that situate this single-case design as a critical case, intended to explain Generation Y business students’ personal epistemologies within established theory. In doing so, this study aims to confirm King and Kitchener’s (1994) Reflective Judgment Model in the context of social media such that the model may be used to describe one role of social media higher education.

Stage 4 view of knowledge: Knowledge is uncertain, and knowledge claims are idiosyncratic to the individual because situational variables (such as incorrect reporting of data, data lost over time, or disparities in access to information) dictate that knowing always involves an element of ambiguity.

Stage 4 concept of justification: Beliefs are justified by giving reasons and using evidence, but the arguments and choice of evidence are idiosyncratic (e.g. choosing evidence that fits an established belief).

Stage 5 view of knowledge: Knowledge is contextual and subjective because it is filtered through a person’s perceptions and criteria for judgment. Only interpretations of evidence, events, or issues may be known.

Stage 5 concept of justification: Beliefs are justified within a particular context by means of the rules of inquiry for that context and by context-specific interpretations of evidenced. Specific beliefs are assumed to be context specific or are balanced against other interpretations, which (complicates and sometimes delays) conclusions. (King & Kitchener, 1994, p. 14-15)

Interaction with both ill-structured problems and social media in the context accessible through MARK 310 provides the setting for students to practice reasoning within expected patterns of quasi-reflective assumptions. Morgan and McCabe (2012) advocate that experiential learning “is a natural fit for the consumer behavior course” (p. 142), and Rinaldo et al. (2011) champion the prioritization of students’ engagement with social media instead of merely “thinking about the material” (p. 194). Acceptance of social media experiences in the consumer behavior coupled with the ongoing aim of “helping students learn to make defensible judgments about vexing problems” (King and Kitchener, 1981, p. 1) provides a valuable platform for this study’s propositional statements. The theoretical propositions and the course’s structure provide context in support of students’ thinking patterns and led to two propositional statements. It is this setting that bounded the context of MARK 310 as the unit of analysis to enable thick descriptions (Merriam, 2009). Therefore, the following propositions guided data collection and analysis:

1. Interaction with Twitter and exposure to ill-structured problems about marketing led students to interpret, evaluate, and relate evidence, thus strengthening their views of knowledge and concepts of justification.
2. Interaction with Twitter and exposure to ill-structured problems about marketing enabled students’ quasi-reflective development, thus preparing them for reflective thinking.

Refer to Figure 2 as representation of these propositional statements.

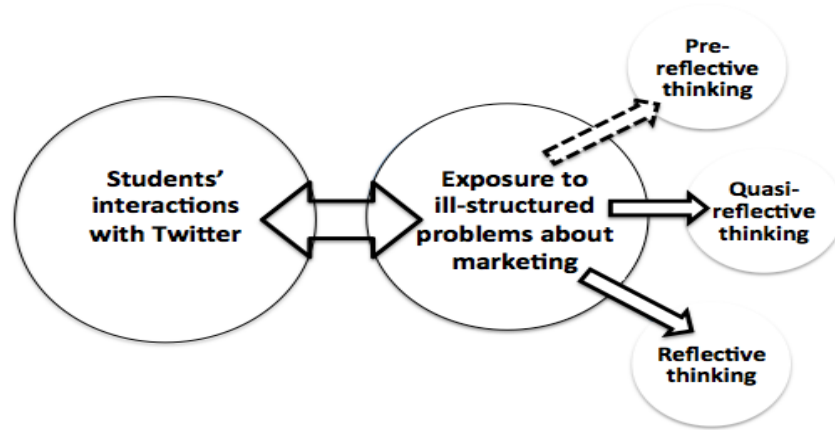


Figure 2. Conceptual Framework. This figure illustrates the relationships of the propositional statements to the theoretical propositions from the Reflective Judgment Model (King & Kitchener, 1994).

### Sample Selection

Fall 2013 MARK 310 Consumer Behavior Section 102 provided the unit of analysis for this study. Fifty-one undergraduate Loyola University Chicago students populated this course. The Quinlan School of Business offered the course, yet enrolled students also represented academic units within the College of Arts and Sciences and School of Communication. MARK 310 permitted only juniors and seniors to enroll due to course sequencing, so all students were over the age of eighteen, and accordingly, fit the generational cohort previously described in this study as Generation Y. (No non-traditional or adult learners were enrolled.)

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This case study practiced purposive sampling to select MARK 310 as the unit of analysis. Purposive sampling supported criteria to select a case that provided an information-rich context (Patton, 2002). In other words, I aimed to represent this case for readers to “learn a great deal about issues of central purpose of the inquiry” (Patton, 2002, p. 273). Moreover, purposive sampling provided the opportunity to select a unit of analysis due to the representation of the “phenomenon of interest” (Merriam, 2009, p. 78). Because MARK 310 students’ only pre-requisite course, MARK 201 Principles of Marketing, provided a foundation of basic marketing acumen, students entering MARK 310 potentially reasoned by drawing upon at least their previous foundational marketing course context. Unlike other advanced marketing courses, MARK 310 content was comparatively theoretical and therefore also fit the criteria to expose students to ill-structured problems. The course positioned consumers as complex and elusive social beings at the center of each theory, so this course naturally contextualized ill-structured problems for students’ practice of reflective judgment assumptions. Given the fit with conditions of the propositional statements, I purposively sampled MARK 310 Consumer Behavior as the unit of analysis for this case study. The personal epistemologies of students enrolled in MARK 310 possibly demonstrated reasoning patterns congruent with quasi-reflective thinking assumptions. Therefore, I also framed the case as particularistic (Merriam, 2009) to focus on the situation MARK 310 experienced.

Although purposive sampling guided the selection of this case study’s unit of analysis, “some dimension of convenience” (Merriam, 2009, p. 79) influenced sample selection. As the researcher of this case study, I also assumed the role of MARK 310 instructor during Fall 2013. This is a role I have assumed for multiple academic years.

Since Spring 2010, I have taught MARK 310 during Fall, Spring, and Summer terms. I have designed the course for sections considered small (nine students) and large (sixty students), and I have also adopted the course materials for online course delivery via Blackboard and Adobe Connect. Therefore, I was uniquely familiar with MARK 310 course objectives, students' performance patterns, and opportunities for social media integration.

However, although I integrated social media each time I taught MARK 310 prior to this case study, I had not formally generated data for analysis and reporting. Both my successes and challenges in using social media with MARK 310 course design motivated this case study. My purpose as a researcher of this case study was to find salient ways in which phenomena of personal epistemologies and social media might interact within the context of advanced marketing curriculum. Further, my role as one of the Department of Marketing's course instructors made this case study "intrinsically interesting" (Merriam, 2009, p. 42) for me to gain a rich understanding of how the phenomena I sought to describe connected or diverged.

Finally, I acknowledged that MARK 310 was a required course for all marketing majors. Due to its constant scheduling availability, the aim to improve upon course design also motivated my selection. The Department of Marketing's most recent strategic plan for curriculum review included emphasis on decision-making and technology acumen amongst our undergraduate students. Therefore, selecting a unit of analysis to substantiate how students make judgments in the context of social media provided a valuable platform to justify the sample selection of MARK 310. In doing so, I intended

representation of this case study to generate discussion amongst department colleagues about our students' reflective judgment in technology-enabled contexts.

### **Instrumentation**

The case study design included multiple data generation methods including archival records and interviews. Collecting data via multiple methods allowed for convergence of data from unique data collection instruments. Because “no single source has a complete advantage over all the others” (Yin, 2009, p. 105), multiple data generation methods aimed to emphasize convergence of evidence. More specifically, I emphasized a corroboration strategy using the data generated from multiple sources of evidence. Corroboration sought to understand the same finding amongst the data generation tools. Additionally, use of multiple sources of evidence supported the goal of data methods triangulation (Merriam, 2009; Yin, 2009) and in turn aimed to address this case study's construct validity. In order to describe students' reflective thinking stages, multiple measures of the quality of reflective thinking addresses construct validity. The propositional statements guided the description of reflective judgment stages students used when exposed to ill-structured problems. Primarily, these ill-structured problems appeared to students through interaction through two independent data generation methods, archival data and structured interviews. Accordingly, when data from multiple sources converged to show a “single reality” (Yin, 2009, p. 122) about Generation Y students' ways of knowing in the context of social media, confidence in the case study's depiction of MARK 310's experiences more closely resembled their naturalistic (Willis, 2007) lived realities.

## Archival Records

Archival records provided the most robust source of evidence for this case study. Per Yin (2009), archival records range across categories including records of client service, organizational records about budgets and employees, geographical records, pre-existing survey data, and other “relevant computer files and records” (p. 109). Coupled with additional description as “public use files” (Yin, 2009, p. 109), students’ use of social media generated a rich archive of data relevant to the case study’s propositional statements. Archival data generated by students’ use of social media in MARK 310 provided 373 messages publicly shared and usable for analysis.

For MARK 310 students, multiple events occurred that produced archival data. All students completed the Paradox of Choice (PoC) *AdAge* Consumer Insights Roundtable (CIR) project. Refer to Appendix A for the project description. The project description required minimal interaction with social media yet encouraged students to interact via Twitter throughout the scheduled in-class presentation dates. Merely encouraging instead of requiring students’ social media use followed recommendations found within the literature (Kaplan & Haenlein, 2010). Including social media use in seven CIR project iterations allowed social media archival data generated by MARK 310 students to be extracted from its online setting. Recognizing social media archival data as a “public use file” (Yin, 2009, p. 109) provided opportunities for MARK 310 to possibly demonstrate reflective thinking about ill-structured problems within the CIR projects and also naturally found through their social media interactions. Accordingly, archival social media interactions produced the opportunity for repeated analysis of a series of events

that MARK 310 students experienced in a relatively short time frame per the course schedule.

Social media archival data was available through the public nature of user generated content (Kaplan & Haenlein, 2010). When students decided to interact via social media, the CIR project description required their messages to include the hashtag #m310. This hashtag allowed all students' messages to be publicly available, and unless students autonomously deleted messages or adjusted profile privacy settings, all tweets marked with #m310 were available for analysis. In order to protect against lost data and maintain an accurate archive of tweets, I extracted social media archival data from Twitter on the same day students completed a CIR project presentation. I used a basic screen capture function available within any standard computer operating system to extract images of the messages students posted to social media. I stored these images within a Microsoft Office Word document by aggregating all images from one project in chronological order. Seven Word documents resulted to represent one archival file for each CIR project. I extracted 373 screen shots as archival data.

The value of archival data, per Yin (2009), was anticipated to add relevancy to the context of students' experiences in MARK 310 by demonstrating how students used social media. Further, Yin (2009) recommended giving attention to the circumstances that led to the availability of the data in order to strengthen attempts to represent the case. In this case study, students produced the archival records for the "specific purpose" (Yin, 2009, p. 109) of their CIR projects, and the information-rich (Patton, 2002) data generated by a variety of students gave valuable support to evaluate in relationship to the propositional statements.



## Interviews

Interviews served as an important source of evidence to create a “guided conversation” (Yin, 2009, p. 110) with MARK 310 students. I considered students who participated in the structured interviews as informants instead of respondents, despite the relative brief time informants spent during the interview session. Each interview session lasted approximately forty-five minutes. As informants, the students provided their opinions not about how much information they possessed about ill-structured problems in the field of marketing but about how they learned from the ill-structured problems the interview protocol exposed for them. Interviews with students also supported data method triangulation by addressing the strategy to corroborate data. Interview data was collected in a conventional offline setting that more closely resembled standard face-to-face classroom interactions. Therefore, interview data provided an additional context to converge with archival data in a continuous effort to strengthen construct validity (Yin, 2009).

During Spring 2014, I began interview recruitment to collect data using focus interviews or shorter case study interviews (Yin, 2009). Refer to Appendix for the email text used for informant recruitment. I emailed students who consented in Fall 2013 to participate in the study. I first focused my recruitment on thirteen students who represented both sexes and used social media in a range of ways. Ten informants agreed to participate. Refer to Appendix for informants’ pseudonyms, demographic information, and description of their Fall 2013 social media usage.

Scheduling interviews during the semester subsequent to MARK 310 strengthened the data method triangulation with archival records. Yin (2009) regards an

important purpose of interviews as corroboration with existing findings, so sequencing interviews following archival data generation sought to continually address the study's propositional statements. Further, scheduling interviews during Spring 2014 addressed my dual relationship as the students' instructor and as this case study's investigator. As such, I attempted to create a non-threatening interview environment. I recruited and trained a graduate assistant from the School of Education. I led this assistant to complete the CITI Course training per Institutional Review Board requirements. Upon completion of CITI Course, I trained the assistant to schedule interviews with informants and to use the interview protocol. In doing so, I sought to generate information-rich (Patton, 2002) data from informants through the trained graduate assistant. As the graduate assistant began work on this project during Spring 2014, she more capably could appear "genuinely naïve about the topic" (Yin, 2009, p. 111). Per Yin (2009), shorter interviews, such as those generated by this case study, should achieve conversational tone through open-ended questions. Because the assistant did not know the informants prior to their scheduled interviews, she more easily upheld the structured wording of the protocol. Hence, attending to the interview setting strengthened the context in which to ask structured questions regarding personal epistemologies.

To collect interview data from ten informants, I trained the graduate assistant to use the probing questions provided by the Reflective Judgment Interview (King and Kitchener, 1994) guide. Refer to Appendix to review the interview protocol. The structured questions encouraged informants to describe their views of marketing knowledge and ways of knowing with as much detail as possible. Thus, the structured probes encouraged students to reflect on their justification of knowledge gained through

their MARK 310 experiences. Simultaneously, informants had the opportunity to share “fresh commentary” (Yin, 2009, p. 111) through interview questions using social media interactions unique to the interview.

The guide included two ill-structured problems that represented MARK 310 course content. I constructed one issue to represent a general discussion of marketing; this issue did not require interaction with social media. The second issue prompted interaction with social media. Using an iPad provided the by trained graduate assistant, informants were asked to select a message within Twitter. Upon selection of the social media interaction, informants responded to all structured RJI probe questions. Interviews were recorded using a standard audio device. Immediately upon each informant’s participation, the recordings were shared with another trained graduated assistant and transcribed. Upon transcription, the audio recordings were deleted.

### **Analytic Technique**

I used pattern matching as the analytic technique to attend to data generated from social media archival records and interviews. As a descriptive case study, pattern matching was particularly relevant due to the predicted pattern of reflective thinking stages outlined by the Reflective Judgment Model (King & Kitchener, 1994). This pattern was defined prior to my data collection, so emerging patterns that corresponded to Reflective Judgment Model (King & Kitchener, 1994) thinking patterns strengthened the internal validity of the results for the study. Further, two propositional statements guided the design and data collection of this case study, so pattern matching allowed the comparison of conditions and characteristics that emerged from students’ in-class and interview experiences with social media. Although Yin (2009) suggests low precision

levels may challenge a researcher's pattern matching interpretations, the substantiated stages within the Reflective Judgment Model (King & Kitchener, 1994) respond to his recommendation to strengthen case studies with carefully developed measures. In the context of this case study, the culmination of King and Kitchener's (1994) Reflective Judgment Model provides such precision.

### **Procedures for Data Collection**

Data collection began October 31, 2013 and concluded April 2014. The following steps outline the procedures I followed.

#### **Step One**

Upon IRB approval (obtained on October 30, 2013), I scheduled a member of the Department of Marketing faculty to visit my MARK 310 section on November 7, 2013. The objective of her visit was to describe the purpose of this study and the students' role in data collection. A consent form was provided (Appendix). Students had the opportunity to sign the form in class and return to my faculty colleague. The faculty colleague collected the consent forms and placed them in an envelope. The envelope of consent forms was sealed and locked in a designated office in Maguire Hall. I received thirty-six consent forms from fifty-one students enrolled in MARK 310. The forms remained in the sealed envelope until I posted final course grades. Names of consenting students were entered to an Excel worksheet with the file name ConsentProvided.xls; this file allowed pseudonyms to be assigned to participants.

#### **Step Two**

I began journaling immediately upon IRB approval. I wrote the first journaling data on Thursday, October 31, 2013. Two additional days of journaling,

Tuesday, November 5, 2013 and Thursday, November 7, 2013 occurred before data was collected through social media archival data. I completed ten journaling entries by the conclusion of Fall 2013.

### **Step Three**

Per the Course Outline (Appendix), all enrolled students (both those who consented and did not consent) contributed to Consumer Insights Roundtables (CIR) project. See Appendix A for the description of this project. MARK310 included seven Consumer Insights Roundtables projects. During MARK 310's class sessions dedicated to Consumer Insights Roundtables, I observed MARK 310's offline presentations and online use of social media interactions. In doing so, I assumed the role of a participant observer through my own interactions with students using social media. This participant observation provided context of the conventional classroom setting during which students generated archival data through social media interactions. Simultaneously, a trained graduate assistant completed the Direct Observation Template (Appendix). Seven direct observation and six participant observations were completed during Consumer Insights Roundtables (Appendix A).

### **Step Four**

Screen shots of students' interactions via social media were collected after each MARK310 CIR project session. I consistently collected these screen shots screen shots on the same day the CIR project took place. For example, MARK 310 dismissed at 2:15 pm, so all social media screen shots were extracted by end of day. I saved all screen shots as images files and organized the files as Word documents representative of the seven

teams. Only tweets that included MARK 310's course hashtag, #m310, were collected for analysis.

### **Step Five**

In Spring 2014, consenting students received recruitment emails for in-depth interviews. See Appendix for Email Recruitment Script and Appendix for informants' pseudonyms, demographic information, and description of their Fall 2013 social media usage. Thirteen of thirty-six consenting students initially received recruitment emails. These students represented both sexes. Further, approximately eight of the students were active via social media in MARK310 while others did not actively interact using social media. The thirteen recruited students also had no direct interaction with me as the researcher/instructor during Spring 2014.

### **Step Six**

I recruited a graduate student to schedule, conduct, and record each interview. The graduate student completed CITI Course certification to ensure appropriate treatment of interview informants. I also briefed the graduate assistant prior to the first interview. During this meeting, I emphasized the structure of the Reflective Judgment Interview, including the purpose of the probing questions. I also guided the graduate assistant to properly use an iPad to collect interview responses during the probes that inquired about ways of knowing through social media. The graduate assistant completed two interviews prior to a debrief meeting. The debrief meeting allowed me to verify the appropriate use of the interview guide and to hear the graduate assistant's perception of informants' reactions and non-verbal gestures. I assessed that the graduate assistant effectively executed interview procedures, so the graduate assistant continued to schedule interviews

at mutually agreeable times for the remaining informants. Each interview was conducted on Loyola's University Chicago's downtown campus.

### **Step Seven**

Interviews were recorded using an audio recording device loaned from Digital Media Services. When an interview was completed, the graduate assistant returned the recording device to me, and I shared the audio file with another trained graduate assistant. This assistant transcribed the interviews as files were received. Upon transcriptions, the audio files were erased from the device, and I returned the device to Digital Media Services. Transcription resulted in one-hundred pages of single-spaced, 10 point font pages of interview data.

### **Coding**

To facilitate pattern matching, I created a coding guide to address data generated by social media archival records and interview data. Refer to Appendix for this guide. Again, the propositional statements based on the Reflective Judgment Model (King & Kitchener, 1994) guided the assignment of codes to match to evidence of students' ways of knowing and concepts of justification. This practice was congruent with Yin's (2009) recommendation for "analytic priorities" (p. 136) to support reliance on the propositions. Thus, the codes represented assumptions used by individuals operating within the internal structure of the model's three principle stages or "patterns" (King & Kitchener, 1994, p. 44). Matching the coding criteria to each datum – a social media message or an interview quote – generally allowed me to evaluate the frequency of data that matched assumptions within pre-, quasi-, and reflective thinking. I preliminarily used this process – focused on theoretical propositions – to gain initial traction for description of the ways data

converged (or plausibly diverged) from the established directions the propositional statements represented.

I also used a computer-assisted tool to advance pattern matching as an analytic technique. I selected Dedoose, described as “a cross-platform app for analyzing qualitative and mixed methods research with text, photos, audio, videos and spreadsheet data” (Dedoose, 2014). After reviewing Dedoose’s self-training tools, including a pdf manual and YouTube links, I uploaded Word documents to Dedoose including seven archival data records (one per Fall 2013 CIR team) and ten interview transcripts. I also uploaded the coding guide that assigned a code to each assumption of the seven Reflective Judgment Model (King & Kitchener, 1994) stages. This readied my use of Dedoose for analysis in a similar pattern matching capacity as my preliminary, manual attempt.

Specifically, Dedoose more effectively supported pattern matching within interview transcripts than social media archival data. Within Dedoose, I created excerpts of interview text using the software’s highlight and drag and drop functionalities. These utilities allowed me to match codes to interview quotes that represented the range of students’ epistemic assumptions. Dedoose also cataloged and aggregated the excerpted text and codes to produce frequencies of occurrences for each code. Additionally, I used the memo function to resemble a bookmark feature. These memos allowed me to return to informants’ data that did not initially match the structured coding guide but revealed potential for category construction (Merriam, 2009) to support salient themes.

Social media archival data was less compatible with Dedoose functionality. Although archival data also uploaded as a Word document, screen shot images, instead of



text, represented each datum. The same process of creating extracts for highlighting and drag and drop coding did not attach to each image as to transcript text. I continued to memo within the archival data yet did not solely rely on Dedoose coding to analyze archival data. Instead I returned to manual coding of archival data using the coding guide (Appendix). I arranged all data eligible for coding into a PowerPoint file structured by Reflective Judgment Model (King & Kitchener, 1994) stages. I manually assigned a code to each archival data record. This produced a file that integrated archival data generated from seven CIR projects across the three major Reflective Judgment Model (King & Kitchener, 1994) stages. Use of the PowerPoint file provided ease of masking students' social media avatars to protect their identities in the representation of this case study.

When all archival data and interview data matched a coded stage of the Reflective Judgment Model (1994), I revisited my preliminary analysis aimed to construct categories and marked by memos. Merriam (2009) refers to memoing as an activity associated with open-coding. Open-coding, in the context of this case study's data generation methods, supported my investigation of "anything possible" (Merriam, 2009, p. 178). Through open-coding, I aimed to construct categories that determined salient themes within the patterns of archival and interview data. In doing so, I again addressed data method triangulation to corroborate findings in my two data generation sources. This practice also represented an attempt to strengthen construct validity (Yin, 2009).

I also addressed investigator triangulation to strengthen the internal validity of the study. In particular, I attempted to overcome threats to internal validity through investigator triangulation of the social media archival data. Because the computer-aided tool selected did not code the screen shot data with the same compatibility as the

interview data, I trained the graduate assistant who collected interview data to independently code the archival data from each of the seven CIR project iterations. Again, due to my dual role as the instructor of the course and the primary investigator of this case study, investigator triangulation strengthened the trustworthiness of the analysis. Due to my participation with the students' naturalistic experience in MARK 310, investigator triangulation structured a goal to "present a holistic interpretation" (Merriam, 2009, p. 215) of students' ways of knowing contextualized by social media. To achieve this goal, the graduate assistant coded twenty-five percent of archival data. In chronological order, she coded every fourth tweet generated by MARK 310 students using the coding guide. Prior to her coding, we agreed to discuss coding that did not match should the disagreement be between principle stages. For example, codes needed to match the internal structure of pre-, quasi-, and reflective assumptions. Yet, should one investigator code data as Stage 4 with the other investigator coding the same data as Stage 5, agreement on quasi-reflective coding resulted. She aggregated her coded data to represent evidence that described pre-, quasi-, and reflective thinking stages. Although minimal disagreement occurred within successive stages internal to one major stage, no disagreement resulted amongst the three major stages of the Reflective Judgment Model (King & Kitchener, 1994).

### **Summary**

In closing, this chapter provided an overview of the methodology and procedures used in this case study. The research questions supported the selection of holistic single-case design (Yin, 2009). This design appropriately addressed a "contemporary phenomenon" (Yin, 2009, p. 88) within the real-life context that social media in higher

education offers. Additionally, MARK 310 Consumer Behavior, the unit of analysis, provided a critical case through which this study's theoretical propositions aimed to confirm the Reflective Judgment Model (1994) in the context of Generation Y business students' use of social media. To support the selection of MARK 310 as the unit of analysis, I employed purposive sampling. The context of MARK 310 met the criteria of potential exposure to ill-structured problems through course content. Additionally, the course held opportunity to integrate social media for use by students. Convenience sampling, however, also supported the selection of MARK 310 due to my role as the course instructor.

I also discussed the importance of multiple data generation methods to represent students' experiences in MARK 310. Archival data generated via social media in Fall 2013 triangulated with interview data generated from ten interviews scheduled during Spring 2014. Pattern matching provided the analytic technique, and a computer-aided tool also supported coding efforts. Additionally, use of memos throughout the coding process allowed me to have "a conversation with the data" (Merriam, 2009, p. 178). Thus, I also practiced open coding to explore possible salient themes. I addressed internal validity and trustworthiness also through investigator triangulation; here, I led a trained graduate assistant to independently code archival data.

Next, Chapter 4 aims to represent the findings of the methodology and procedures.

## CHAPTER FOUR

### FINDINGS

Chapter One provided the purpose, theoretical framework, and significance for this study. Chapter Two reviewed the literature relevant to social media, social media in marketing education, and cognitive development. This chapter aimed to establish a valuable platform through which to describe MARK 310 students' development within reflective thinking stages when they encountered social media. Chapter Three focused on the methodology of this case study. Chapter Four now presents findings about how social media interactions and exposure to ill-structured problems supported MARK 310 students' processes of interpretation, evaluation, and relating evidence. Findings also reveal how social media interactions and exposure to ill-structured problems enabled quasi-reflective thinking to prepare students for reflective thinking.

First, I address the research question: "What evidence of pre-reflective, quasi-reflective, and/or reflective stages is demonstrated via social media interaction? How does social media interaction enable reflective thinking in an advanced marketing course?" Per the first propositional statement, interaction with Twitter and exposure to ill-structured problems about marketing enabled students' quasi-reflective development, thus preparing them for reflective thinking. Next, I address the second research question, "How do students make judgments about ill-structured marketing problems when using social media?" Per the second proposition, interaction with Twitter and exposure to ill-structured problems about marketing led students to interpret, evaluate, and relate

evidence, thus strengthening their views of knowledge and concepts of justification.

These questions and propositions, as demonstrated through the Conceptual Framework in Figure 2 guided data analysis via pattern matching and led to two themes.

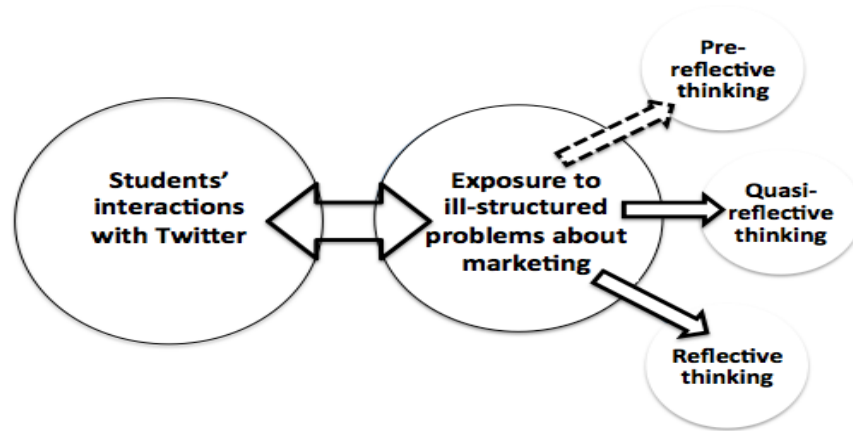
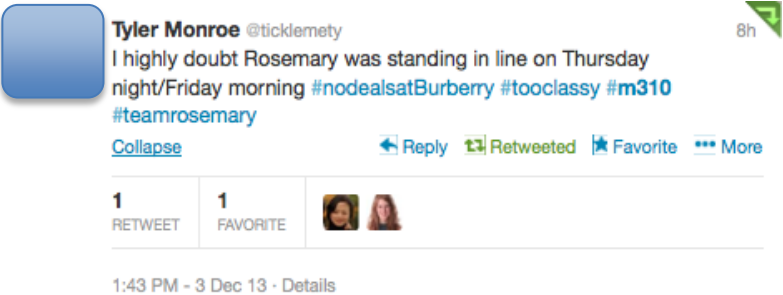




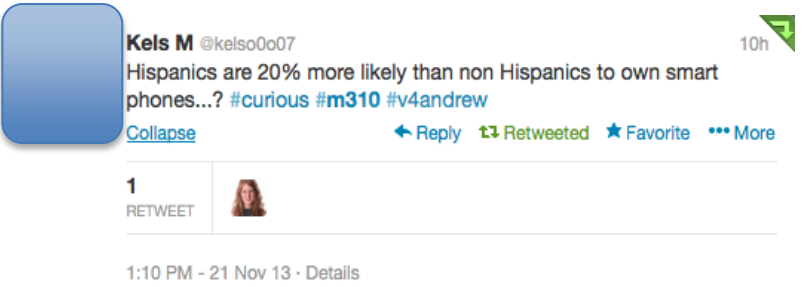
Figure 2. Conceptual Framework. This figure illustrates the relationships of the propositional statements to the theoretical propositions from the Reflective Judgment Model (King & Kitchener, 1994).

To analyze the research questions, I coded all social media archival data collected during Fall 2013. I also coded data generated from ten interviews conducted during Spring 2014. Appendix F shows Reflective Judgment Model (King & Kitchener, 1994) assumptions represented by codes. These coded assumptions guided coding of both interview and social media archival data as seen in Table 1. I categorized each datum according to the assumptions of the Reflective Judgment Model stages. More


specifically, the assumptions within pre-reflective, quasi-reflective, and reflective stages provided a “matrix of categories” (Yin, 2009, p. 135) through which I analyzed how students’ interactions with social media showed ranges of thinking patterns within the Reflective Judgment Model. Furthermore, triangulation of interview and archival data provided support for the research questions and propositions and ultimately led to two themes.

Table 1. Coding Guide with Interview and Archival Data

Assumption	1	2	3	4	Interview	Archival Data
<b>Stage 2</b>	Knowledge is certain, but some people do not have access to it. (2,1)	Authorities such as scientists, teachers, and religious leaders know the truth. (2,2)	When the truth is uncertain accept the view of an authority. (2,3)	Evidence is not a criterion for establishing truthfulness. (2,4)	"I came to my conclusion of marketing from my professor's, from my education, the school of business. So, I think that would be the correct answer." -Karen	
<b>Stage 3</b>	Knowledge is absolutely certain in some areas and temporarily uncertain in other areas. (3,1)	Beliefs are justified according to the word of an authority in areas of certainty and according to what "feels right" in areas of uncertainty. (3,2)	Evidence can neither be evaluated nor used to reason for conclusions. (3,3)	Opinions and beliefs cannot be distinguished from factual evidence. (3,4)	"There is not necessarily any hard evidence saying that, 'oh well, marketing does this'. You can't just paint marketing as like it is a subject or an area as one way or the other. Whether it is forcing consumers to do something or leading them to make these decisions that they really didn't want on their own." -Steve	

Stage 4	Knowledge is uncertain because of the limitations of the knowledge. (4,1)	Beliefs are justified by idiosyncratic uses of evidence and opinion. (4,2)	Differences in points of view exist because of people's upbringing or because they deliberately distort information. (4,3)	Evidence is used in support of a point of view along with unsubstantiated opinion. (4,4)	"So I don't think there is ever a correct formula for it and I don't think anyone can be really correct about it, it's just a matter of how you perceive things." -Susan	
Stage 5	Interpretation is inherent in all understanding; therefore, no knowledge is certain. (5,1)	Beliefs may be justified only within a given context or from a given perspective. (5,2)	Evidence can be evaluated quantitatively: within a perspective, some evidence is stronger or more relevant than other evidence. (5,3)	n/a	"I guess you could if you could measure every single intention of all the marketers in the world, but other than that no really I guess it's just one way of looking at it." -Dawn	



Stage 6	Knowledge is uncertain and must be understood in relationship to context and evidence. (6,1)	Some points of view may be tentatively judged as better than others. (6,2)	Evidence on different points of view can be compared and evaluated as a basis for justification. (6,3)	n/a	<p>“Previous knowledge about (looking) in the news. I was I reading the news earlier and there were stuff about Ukraine and all that stuff and Syria. So...just there are more important things going on in the world and then to see a tweet about getting slapped in the face by a mammal, by a whale just doesn't seem right.” –Mandy</p>	
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Upon coding interview and archival data to address the research questions, two 72 prominent themes were revealed. To arrive at these two themes, I practiced pattern matching (Yin, 2009) amongst data to demonstrate the outcomes conveyed by the propositional statements. These themes include: 1) MARK 310 students used social media to express uncertainty and limited knowledge and 2) MARK 310 students used social media to integrate evidence. These themes resulted due to students' exposure to ill-structured problems within the Consumer Insights Roundtable (CIR) project (Appendix A). Also, Twitter exposed students to ill-structured problems via constant feeds of information that held potential for student interaction. Similar exposure to ill-structured problems via social media occurred during students' participation in interviews. Table 2 shows examples of ill-structured problems faced by MARK 310 students as part of their experiences with the Consumer Insights Roundtables project.

Table 2. Examples of Ill-structured Problems from Fall 2013 Consumer Insights

<b>Ill-structured Problem</b>	<b>Brief Description</b>
<i>AdAge</i> Basha: How are choice and happiness related to consumer decisions?	Basha made consumption choices that did not resemble how a consumer of her demographic likely consumed. Basha drove a flashy car and actively used social media, two choices unexpected by retirees.
<i>AdAge</i> Alfredo: How can utilitarian and hedonic needs be satisfied while avoiding missed opportunities?	Alfredo had financial restrictions that limited, in particular, his grocery, car, and technology choices. Moreover, his two teenage children approached college decisions, and he did not want to settle for less than a premium experience for their education.
<i>AdAge</i> Jay: How can regret about consumption choices be avoided?	Jay, a high school wrestling coach, lived in a low-income area, yet he aspired to graduate school and a premium car. He lived the stereotypical “bachelor” lifestyle.
<i>AdAge</i> Andrew: How can effective decisions be made to avoid disappointment?	Andrew, a young politician, attempted to understand how his lifestyle represented his role in his community.
<i>AdAge</i> Chris: How does comparison influence consumption?	Chris, a divorced father with custody of his daughter, faced comparison when his identity as a small business owner overlapped his personal identity.
<i>AdAge</i> Rosemary: How do personality traits influence consumption?	Rosemary, a married mother of a young daughter, consumed luxury brands and accessed abundant resources to provide the best products for her family.
<i>AdAge</i> Jennifer: How can effective decisions be made to avoid disappointment?	Jennifer, a married mother of two young boys, did not work yet still pressed to provide products that showed settling for less was sometimes preferred to more complex choices.

### Results of Coding

Table 3 shows the percentages of student comments within each stage of reflective thinking for the interview and social media archival data. More evidence of

quasi-reflective thinking was coded within social media archival data than within interview data.

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Table 3. Interview and Social Media Archival Data per Reflective Judgment Model Stage

Stage of Reflective Thinking	Interviews	Percentages	Archival Data: Tweets	Percentages
Pre-reflective	58	55.24%	104	27.9%
Quasi-reflective	40	38.10%	211	56.6%
Reflective	7	6.67%	5	1.3%
No Code	n/a	n/a	53	14.2%
Total	105	100%	373	100%

**Results of social media archival data coding.** Social media archival data (tweets) showed a greater frequency of quasi-reflective thinking due to students' interactions with ill-structured problems. The Consumer Insights Roundtable project (Appendix A) produced more opportunities for students to demonstrate reflective thinking assumptions. Three hundred seventy-three total tweets generated through social media interactions. This archival data showed a range of Reflective Judgment Model assumptions, and these assumptions represented the model's three major stages. Although nearly fifty-seven percent of archival data showed students' views of knowledge as quasi-reflective, nearly twenty-eight percent of archival data showed students' reasoning as pre-reflective. Further, only one percent of tweets were coded as reflective, thus indicating that students' personal epistemologies had not developed to represent assumptions characteristic of reflective thinking. The propositional statements that guided this case

study anticipated this pattern whereby students' primarily used quasi-reflective assumptions to express their ways of knowing.

**Results of interview data coding.** Coded data from ten interviews also showed students used a range of Reflective Judgment Model assumptions. Similar to social media archival data, students least often used reflective thinking assumptions: approximately seven percent of interview data represented reflective thinking. Minimal use of the most advanced reflective thinking assumptions indicated students were capable of Stage 6 reasoning, yet their epistemologies had not substantially developed to sustain reflective reasoning. However, unlike social media archival data, students more frequently used pre-reflective than quasi-reflective thinking assumptions during interviews. Pre-reflective thinking assumptions manifested in more than half of coded interview data while quasi-reflective thinking assumptions occurred in approximately thirty-eight percent of coded interview data.

In summary, coded interview data primarily showed pre-reflective evidence of informants' personal epistemologies. Although informants interacted with social media as part of the interview procedure, they did not have the opportunity to generate content through direct of Twitter. Instead, the interview used RJI probes for students to describe a tweet they selected from established Twitter feeds. This interview situation did not provide a setting where informants could demonstrate more complex reasoning.

### **Two Salient Themes**

Upon coding, open coding, and analysis, I looked for themes by using pattern matching. Pattern matching allowed me to demonstrate outcomes conveyed by the propositional statements in response to the remaining research questions. The patterns

that emerged addressed the questions: “How does social media interaction enable reflective thinking in an advanced marketing course?” and “How do students make judgments about ill-structured marketing problems when using social media?”

Accordingly, two themes will be discussed: 1) MARK 310 students used social media to express uncertainty and limited knowledge, and 2) MARK 310 students used social media to integrate evidence.

**Theme 1: MARK 310 students used social media to express uncertainty and limited knowledge.** One way MARK 310 students used social media to express uncertainty and limited knowledge was to ask and select questions. Students asked questions in tweets, and selected questions to examine in Twitter feeds during interviews. When students used social media in this way, they reasoned through a range of Reflective Judgment Model assumptions and expressed acceptance of ambiguity. Within social media archival data, sixty-eight tweets included students’ use of a question. Similarly, within data from ten interviews, three students selected tweets that included questions. (Refer to Appendix M for images of tweets selected by informants during their interviews.) Table 4 includes frequencies of students’ questions within social media archival data that represents a range of Reflective Judgment Model thinking. Examining questions posed in the tweets and in the interviews was one way to give examples of how students expressed uncertainty.

Table 4. Social Media Archival Data per Reflective Judgment Model Stage for Theme 1

Stage of Reflective Thinking	Use of Questions in Archival Data	Percentages
Pre-reflective	13	19%
Quasi-reflective	51	75%
Reflective	4	6%
Total	68	100%

Stage of Reflective Thinking	Use of Questions in Archival Data	Percentages
Pre-reflective	13	18%
Quasi-reflective	53	73%
sReflective	7	10%
Total	73	100%

The pattern of questions represented students' use of multiple Reflective Judgment Model stages. When students' questions represented pre-reflective thinking, they used the Stage 3 assumption that "knowledge is absolutely certain in some areas and temporarily uncertain in other areas (King & Kitchener, 1994, p 14.). The range of uncertainty representative of quasi-reflective thinking intertwined assumptions characteristic of Stages 4 and 5. The first assumption of Stage 4 thinking is "Knowledge is uncertain because limitations of the knower," (King & Kitchener, 1994, p. 15) and the first assumption of Stage 5 thinking is "Interpretation is inherent in all understanding; therefore, no knowledge is certain" (King & Kitchener, 1994, p. 15). Finally, questions

that represented reflective thinking integrated the three Stage 6 assumptions. In particular, students expressed questions that represented their uncertain knowledge “in relationship to context and evidence” (King & Kitchener, 1994, p 15). Therefore, students used social media to express stages of uncertainty and limited knowledge about consumer behavior concepts when faced with ill-structured problems. Social media provided the platform through which to interact with questions.

***Pre-reflective thinking.*** When students used social media as a tool to ask questions, the questions did not always represent advanced cognitive development of students’ views of knowledge and concepts of justification. Students asked questions via social media, yet these questions represented the knowledge they gained based on direct observation within the MARK 310 environment. Therefore, although social media enabled students to express opinions and beliefs in the form of questions, these questions occasionally represented pre-reflective thinking. When asking pre-reflective questions, students failed to substantiate their reasoning with evidence. Instead, despite posting text to social media in the form of a question, the question represented certain opinions, thus representing the students’ epistemic assumptions that an ill-structured problem did not exist. Without reasoning that showed an ill-structured problem as truly vexing, the student did not show growth to quasi-reflective thinking.

For example, Lindsay’s social media interaction showed that she used questions to discuss the choices *AdAge* Jay faced to shop locally or online. Her use of two questions, however, did not represent the limitations of her knowledge. Instead, the questions represented Lindsay’s certainty about what she felt was right in the context of



Team Jay's roundtable. She did not provide factual evidence via social media, and her 79 questions implied that she did not seek a response from her MARK 310 classmates.



Figure 3. Archival data. This tweet illustrates a pre-reflective question asked by Lindsay via social media.

Like Lindsay, Kelly used social media to ask a question, yet the question Kelly asked of MARK 310 implied that she felt certain in her knowledge. In other words, she asked the question based on what she observed in the context of Team Alfredo's roundtable, yet she did not expect an answer to the question because she provided her own certain answer. Further, she framed the question with her opinion of how *AdAge* Alfredo should choose. Yet, no factual evidence supported her question. Instead, Kelly showed certainty despite her use of social media to ask a question to MARK 310.

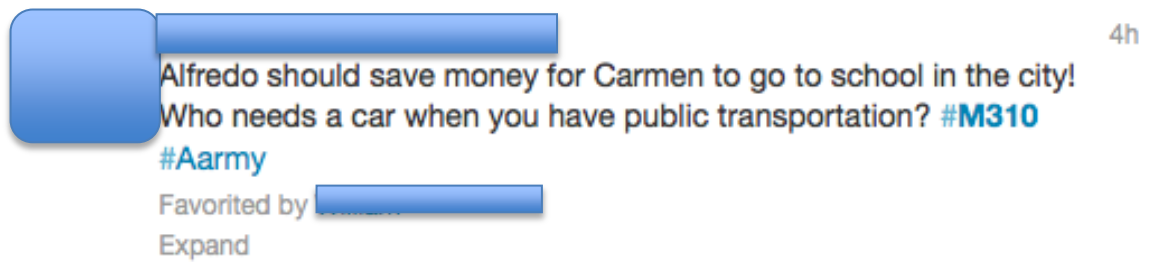


Figure 4. Archival data. This tweet illustrates a pre-reflective question asked by Kelly via social media.

Leigh also used social media to ask a question, yet her question slightly differed from questions posted by Lindsay and Kelly. While Lindsay and Kelly's questions expressed certainty, Leigh's questions showed limited knowledge about MARK 310 course content. By asking a question about *AdAge* Andrew's consumption choices, Leigh implied minimal understanding of course content about reference groups (Solomon, 2012), so her expression of knowledge about course content was incomplete. The incomplete knowledge about course content, even when framed within a question, again lacked factual evidence. Instead, Leigh used social media to suggest her interpretation that Team Andrew's roundtable "felt right" (cite) in relationship to celebrity endorsement. This question via social media lacked evidence to help Leigh or MARK 310 reach a conclusion. Therefore, these traits frame Leigh's social media question as representative of pre-reflective thinking.



Figure 5. Archival data. This tweet illustrates a pre-reflective question asked by Leigh via social media.

A similar range of uncertainty and limited knowledge also manifested in the social media selected by MARK 310 students during interviews. The interview protocol did not require students to post an original interaction to social media but instead to select one tweet from the sources used during their semester in MARK 310. Students again interacted with questions in the context of social media by selecting tweets that included questions. These questions represented nuanced stages within the Reflective Judgment Model.

For example, Karen selected a tweet from @trendwatching that included a question. Similar to the aforementioned questions Lindsay and Kelly asked, Karen's selected question did not represent uncertainty about the tweet's content. No answer to her selected question was expected. Karen described what she thought about her selected @trendwatching tweet by noting,

I don't think this tweet was very efficient in that it's not going to get a lot of people clicking on it cause they don't really know what it is. It's not going to attract much attention with the vagueness.

Karen's interpretation of the tweet showed her certainty about how @trendwatching framed the tweet's content. Karen believed the vague question instead

held potential for people to miss the meaning of the content and represent incomplete 82  
knowledge about the tweet's topic. Her description of the tweet, based on opinion and  
belief without factual evidence, showed her use of pre-reflective thinking assumptions.

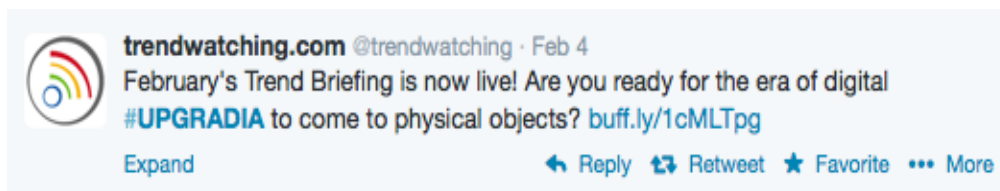


Figure 6. Interview tweet. This tweet illustrates Karen's interaction with social media during her interview.

During his interview, Darren also selected a tweet that included a question. Like the question Karen selected, Darren's question did not intentionally elicit a response. Instead, Darren recognized a popular product tagline with certainty. He shared what he believed about the tweet's content, saying,

So they are saying got milk? . . . they're getting rid of the got milk slogan and they are playing more into the benefits that milk has in the new slogan Milk Life. And I was looking at this commercial where a family is running around and it looks like they're just like radiating milk off of them. So it's like milk is providing them with the nutrients that they need to go through out their day.

Darren's interpretation of the tweet's content relied upon pre-reflective thinking assumptions also used by Karen in regards to her selected tweet. With certainty, Darren reported a concrete interpretation of the content he observed based on the tweet's content. He summarized, with certainty, what he observed from the tweets content, and given his use of pre-reflective thinking assumptions, he made no indication that an alternative solution was available to dissolving the tagline.

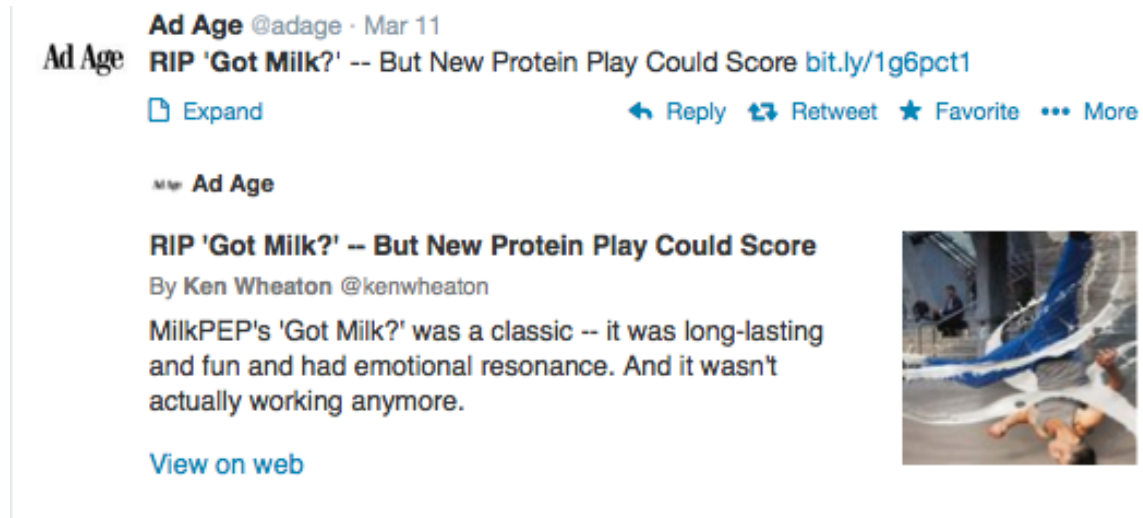


Figure 7. Interview tweet. This tweet illustrates Darren's interaction with social media during his interview.

*Quasi-reflective thinking.* Other questions posted to social media indicated MARK 310 students' personal epistemologies represented more advanced cognitive development. Accordingly, these students intertwined quasi-reflective assumptions to reason about the ill-structured problems they observed in MARK 310. For example, Kasey questioned *AdAge* Alfredo's demographic traits in context of what influenced his pantry choices. Although Kasey might have asked more of her MARK 310 classmates – e.g. she did not optimize the 140 characters available to her via Twitter – her question attempted to recruit responses from her peers. Her question, therefore, represented her knowledge about Team Alfredo's roundtable as both uncertain and limited in knowledge. Simultaneously, her question expressed her view of knowledge that she was open to interpretations and at ease with uncertainty in the ill-structured problem presented by Team Alfredo. Therefore, Kasey's question showed quasi-reflective assumptions that

represented higher, quasi-reflective stages of the Reflective Judgment Model in comparison to pre-reflective questions expressed by Lindsay, Kelly, and Leigh.

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Figure 8. Archival data. This tweet illustrates a quasi-reflective question asked by Kasey via social media.

Edith asked questions via social media using quasi-reflective thinking assumptions similar to Kasey's reasoning. She expressed uncertainty and showed her limited knowledge about realistic options for *AdAge* Andrew to save money. Edith's questions expressed her acceptance of interpretation as a part of her process to understand. Her questions showed her attempt to recruit knowledge from her classmates by sharing choices e.g. couponing or loyalty card emails. While the choices she questioned remained idiosyncratic to Edith's initial interpretation of Team Andrew's roundtable, her use of social media captured her lacking knowledge and embodied her approach to develop knowledge.



Figure 9. Archival data. This tweet illustrates a quasi-reflective question asked by Edith via social media.

The tweet selected by Andrew during his interview also showed his personal epistemology as more developed given his use of quasi-reflective assumptions. The tweet Andrew selected tweet included a question that prompted a genuine response, and Andrew reasoned about the question by intertwining Stage 4 and Stage 5 assumptions. When describing what he believed about his selected tweet, Andrew noted,

So, the title is 'What if Twitter got a lot more useful?' Twitter tries to draw attention to itself as a customer service platform. So I thought that was ambiguous because you're not really seeing like how it's going to be more useful. The U.K. division of Twitter is trying to draw attention to the platform's potential as a customer-service provider with a blog post this morning announcing just such an effort from the telecom giant O2. For Twitter, making noise about O2's Tweet Serve is a way to signal that it is serious about broadening its mass appeal. Twitter needs to demonstrate that it has utility beyond serving as, well, a news feed, a source of celebrity musings and a place to talk about TV. That whole social TV phenomenon, for one thing, isn't necessarily as white-hot as it used to be.

Like Karen's recognition of "vagueness" in her interview, Andrew interpreted his knowledge about the tweet's ambiguity. However, Andrew moved beyond ambiguity to incorporate evidence suggestive of his limited knowledge. Interlacing specific mentions of Twitter's U.K. division, blog postings, O2, and the social TV phenomenon represented

Andrew's active interpretation to achieve understanding. Yet, even in the presence of a<sup>86</sup> social media interaction that pressed Aaron to connect various contexts, Andrew's knowledge remained uncertain, as anticipated within quasi-reflective thinking stages.

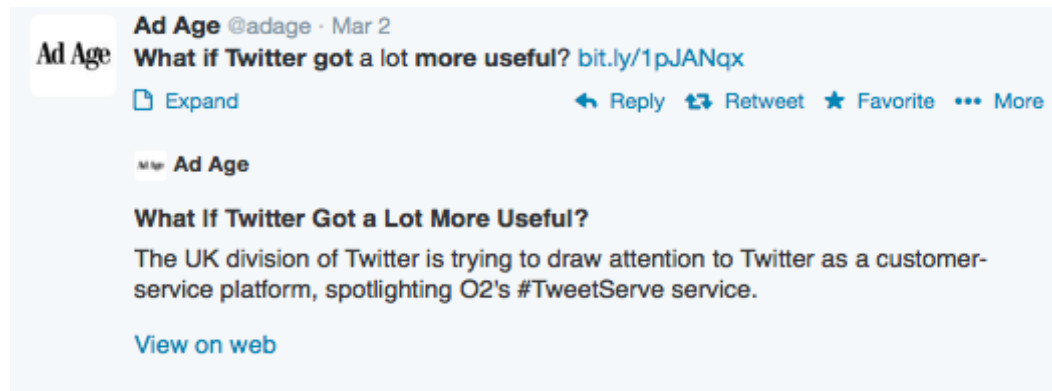


Figure 10. Interview tweet. This tweet illustrates Andrew's interaction with social media during his interview.

**Reflective thinking.** Questions asked via social media by MARK 310 students oftentimes received no responses. Yet, when students who used social media to ask questions expressed their questions in relationship to context and evidence, their peers responded. When students framed questions with additional content that represented what they “judged as better” (King and Kitchener, 1994, p. 254) than other potential content, the students' questions represented reflective thinking assumptions characteristic of Stage 6. Such questions represented social media interactions that elicited responses from classmates. Classmates responded in form of favorites, retweets, and replies. As features of Twitter, favorites and retweets provided a passive way to respond to questions. Use of favorites and retweets allowed MARK 310 students to recognize their classmates' questions, yet these features did not require students to originate unique evidence to extend or continue the concept of justification first shared by the student who asked the question. Furthermore, Twitter also supported replies to be exchanged between students.



When students asked questions framed with evidentiary context as required by reflective thinking assumptions, classmates replied with their own knowledge given the context of the ill-structured problem. 87

For example, Cindy posed a question about brand loyalty. She contextualized her question with evidence that *AdAge* Andrew likely shared ill-structured consumption problems with other consumers. She extended her point of view by providing a link to evidence she judged as appropriate to substantiate her uncertain knowledge. In doing so, Cindy's tweet garnered three favorites, thus implying that her MARK 310 classmates recognized her use of context and evidence. What was also notable was that Cindy's question received a reply: Jessica attempted to answer Cindy's question. The content of Jessica's reply, however, was not as important as the context through which Cindy initially framed her question. Cindy's use of reflective thinking assumptions provided a substantial platform that encouraged multiple forms of response.

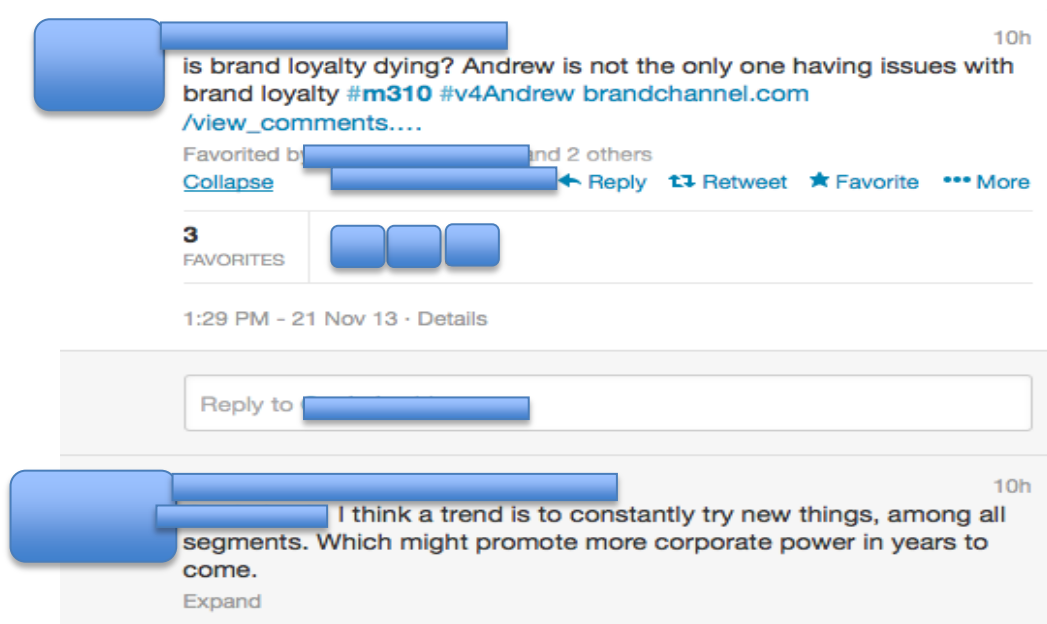


Figure 11. Archival data. This tweet illustrates a reflective thinking question asked by Cindy via social media and the response provided by Jessica.

I also asked questions using social media to contextualize my reasoning about 88

Consumer Behavior topics. Evidence of my interactions via social media revealed my attempts to integrate context available through Twitter to support my inquiry. In doing so, I practiced reflective reasoning and exposed students to my own uncertainty. I also showed openness to act in order to reach resolution by providing relevant use of @ mention and a link to external evidence. Figure demonstrates one such question. Although my question was not resolved, my usage of questions may have altered students' assumptions that faculty hold the truth per pre-reflective thinking.



Figure 11. Archival data. This tweet illustrates a reflective thinking question I asked and supported with @ mention and link to evidence.

**Counterexample.** Finally, although the questions students in MARK 310 asked and selected via social media showed their expressions of uncertainty and limited knowledge, questions were not always structured to represent MARK 310 students' personal epistemologies. In particular, when students asked questions via social media to represent well-structured problems, a high degree of complete resolution resulted (King and Kitchener, 1994, p. 11). During Team Rosemary's roundtable, students responded to the team's portrayal of *AdAge* Rosemary's luxury consumption, which included an upgraded vehicle. Aaron responded to the documentation of *AdAge* Rosemary's car consumption by asking a question via social media. His question represented incomplete knowledge about a car's availability, yet Danelle used social media to link Aaron to

evidence. I, too, linked Aaron to evidence. Danelle and I used social media to quickly 89  
resolve Aaron's limited knowledge. Although Aaron was temporarily uncertain about the  
car, interaction with social media resolved the question and represented "certainty by  
direct observation" (King & Kitchener, 1994, p. 14).

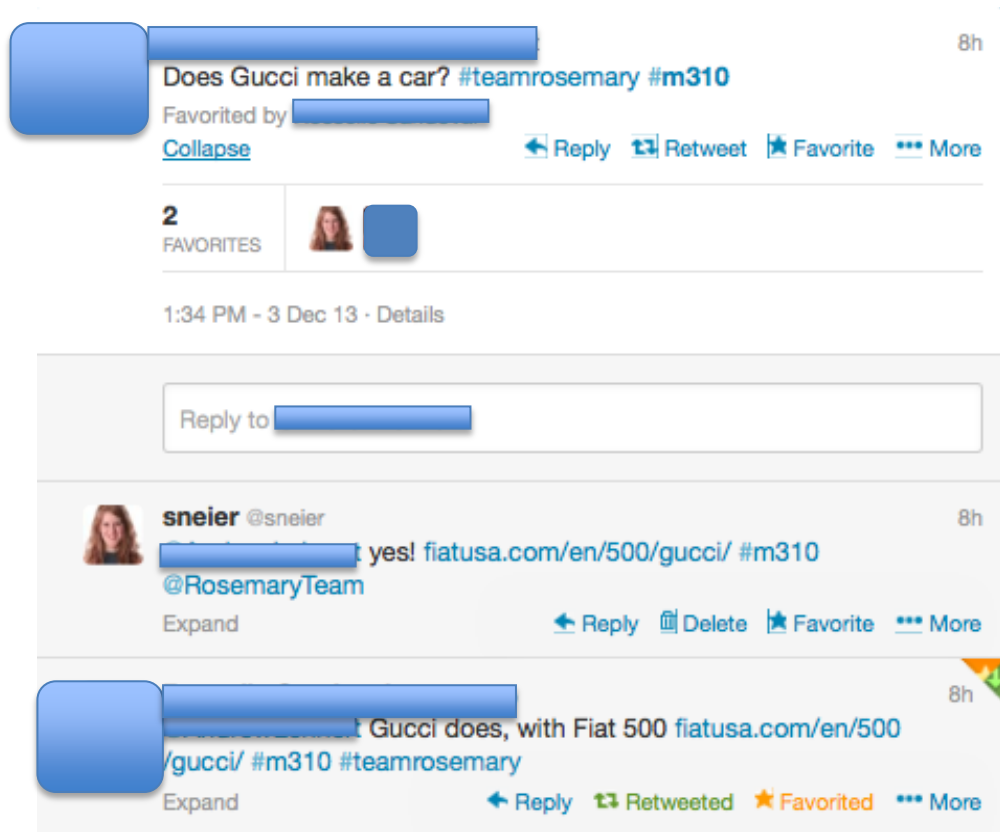


Figure 12. Archival data. This figure illustrates a counterexample of Aaron's question with resolution provided by Danelle and me.

**Summary of Theme 1.** When MARK 310 students expressed uncertainty and limited knowledge, they did so by using social media to ask and select questions. Accordingly, these expressions represented a range of assumptions within the Reflective Judgment Model stages. Questions did not consistently represent students' use of evidence but instead represented their certainty. Yet, some questions invited responses,

thus showing that students recognized questions, in the context of social media, as a part of their concepts of justification. These questions, representative of intertwined quasi-reflective thinking assumptions, provided evidence that students sought complex responses in a complex social media environment. Finally, when students framed their questions with evidentiary text, their classmates used the question to respond to the student's point of view. Therefore, reflective thinking assumptions also manifested within MARK 310 students' expressions of uncertainty and limited knowledge. The questions MARK 310 students asked and selected showed how interaction with Twitter and exposure to ill-structured problems about marketing holds potential for students to interpret, evaluate, and relate evidence, thus strengthening their views of knowledge and concepts of justification.

**Theme 2: MARK 310 students used social media to integrate evidence.** One way MARK 310 students used social media to integrate evidence was to optimize features embedded within Twitter's design. Particularly, students interacted with features including @ mentions, hashtags, and use of external hyperlinks. Table 5 summarizes this coding. When students optimized these features, they used a range of Reflective Judgment Model thinking assumptions to support their reasoning about ill-structured problems. Within social media archival data, 138 tweets included students' use of at least one @ mention, hashtag, or external link. Moreover, each tweet selected by each of ten interview informants included at least one optimized feature. Students' use of these features showed potential to move from pre-reflective to quasi- or reflective thinking because optimizing the features allowed students' to connect evidence to additional, complex contexts. When they interacted with @ mentions, hashtags, and external links,

students showed their attempts to think more complexly in the context made available 91  
via social media.

Table 5. Social Media Archival Data per Reflective Judgment Model Stage for Theme 2

Stage of Reflective Thinking	Use of @ Mentions	Percentages	Use of Links	Percentages	Use of # Hashtags	Percentages	Total Optimized Features	Percentages
Pre-reflective	3	14%	4	10%	28	37%	35	25%
Quasi-reflective	16	73%	34	83%	43	57%	93	67%
Reflective	3	14%	3	7%	4	5%	10	7%
Total	22	100%	41	100%	75	100%	138	100%

Stage of Reflective Thinking	Use of @ Mentions	Percentages	Use of Links	Percentages	Use of # Hashtags	Percentages	Total Optimized Features	Percentages
Pre-reflective	7	20%	12	20%	29	38%	35	25%
Quasi-reflective	22	63%	43	70%	43	57%	93	67%
Reflective	6	17%	6	10%	4	5%	10	7%
Total	35	100%	61	100%	76	100%	138	100%

Students' willingness to optimize social media features represented their use of assumptions for multiple stages within the Reflective Judgment Model. When use of optimized social media represented pre-reflective thinking, students used the Stage 2 assumption that "evidence is not a criterion for establishing truthfulness" (King & Kitchener, 1994, p. 14) to express their personal epistemologies. Moreover, when students' optimized social media within quasi-reflective stages, they intertwined multiple assumptions to reason within Stages 4 and 5. Therefore, students optimized features within social media as tools to interact with available evidence and to add evidence in

order to make judgments about ill-structured problems. When students used reflective 92 assumptions, they integrated evidence using optimized features in order to express their knowledge by adding context and evidence. Additionally, students showed their capacity to judge some evidence as better than other evidence, widely available in the complex social media environment.

***Pre-reflective thinking.*** When students optimized social media functionality, their use of features did not always represent advanced cognitive development within Reflective Judgment Model stages. Students interacted with features available via Twitter, yet the students sometimes used the features to report their observations of the classroom context. In doing so, the optimized features represented an absence of the students' use of evidence, thus reflecting pre-reflective thinking. Students used features for the sake of interaction instead of contributing advanced judgments about ill-structured problems.

For example, Lana used @ mention of the brand Pinterest to interact with what she concretely saw during Team Jennifer's roundtable. Although she optimized her interactivity using "@Pinterest" as a brand mention, her interaction showed certainty about what she saw Team Jennifer share with MARK 310. Lana's @ mention did not judge additional context about the relationship between *AdAge* Jennifer's consumption and Pinterest, so Lana's interaction with social media suggests that her beliefs needed no justification. No abstractions about *AdAge* Jennifer's Pinterest page existed in Lana's attempt to make judgments.



Figure 13. Archival data. This tweet illustrates Lana’s use pre-reflective thinking assumptions by including a @ mention via social media.

Like Lana, Sarah also optimized social media features to interact with brand @ mention when she included “@Folgers” in her tweet. Sarah also optimized her social media interactivity by including an external link to additional evidence from New York Daily News. Although Sarah optimized social media functionality, her reasoning, supported both by @ mention and link, showed her certainty about ill-structured problems reported by Team Alfredo. She readily interpreted the external link to validate Folgers as the brand best suited to *AdAge* Alfredo’s ill-structured problem about grocery choices. However, she did not contextualize the link’s available evidence beyond reporting preference for Folgers through the content “all the way!”. Despite optimization, Sarah’s tweet showed absolute certainty through her judgments about the link’s evidence.



Figure 14. Archival data. This tweet illustrates Sarah’s use of pre-reflective thinking assumptions by including a @ mention and link via social media.

Aaron also optimized features through his social media interaction. However, instead of including @ mentions of brands like Lana and Sarah, Aaron optimized functionality by including the hashtags “#Cars” and “#Events”. Although Aaron optimized different social media features, this optimization also reported what he concretely saw during Team Basha’s roundtable. With certainty, he quoted content documented by the team and used the hashtags to filter what he viewed as absolute certain evidence about his view of *AdAge* Basha. The hashtags showed Aaron’s capabilities to interact with social media features, yet the hashtags did not distinguish his judgments from the factual evidence presented by Team Basha’s roundtable. Instead, he



established what he concretely viewed to be factual by use of hashtag functionality available within Twitter.

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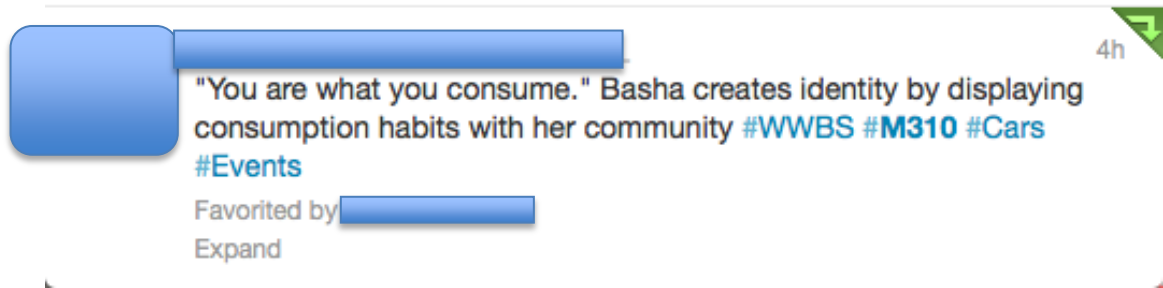


Figure 15. Archival data. This tweet illustrates Aaron's use of pre-reflective thinking assumptions by including hashtags via social media.

Of ten interviews, each student's selected tweet included at least an external link.

During her interview, Jessica selected a tweet from *Fast Company* that optimized multiple Twitter features. Her tweet optimized use of a hashtag, @ mention, and external link. Yet, Jessica expressed no need for justification about the message the tweet conveyed. Instead, she indicated, "So I now feel certain that I know what that tweet was about." She continued to describe her thoughts about her selected tweet by noting,

Now that I clicked on the link I like that they included a quote from him, I liked that they tagged him, that they had a link and a picture. Even though I was looking for a tweet that I wasn't certain about, made me want to click on it. I know who Aziz Ansari is, I think he's very funny. I like it. I like that they have the #MCP1000 so, it's like most creative people. I don't know if there is a 1000 of them. There's just a lot going on in it which is good but it makes you want to click, want to know what Aziz Ansari is doing making a movie or producing a movie, what it's about.

Although Jessica revealed the optimized features that supported her selection of tweets, her certainty about the features showed that she did not possess limited knowledge about the tweet's topic to ill-structured problems. In other words, the optimized social media features did not press Jessica's personal epistemology to recognize an ill-structured problem. Therefore, when reasoning within pre-reflective

thinking stages, optimized features potentially showed students' knowledge about the 96  
composition of tweets instead of recognition of the content's ill-structured context.  
Further, Jessica developed her point of view "from what I have learned from different  
digital media classes especially with PR." Therefore, Jessica's concept of justification  
showed her personal epistemology was justified "according to the word of an authority in  
areas of certainty" (King & Kitchener, 1994, p. 14). In this instance, her coursework  
acted as the authority that she used to establish certainty within the context of her MARK  
310 experience.



Figure 16. Interview tweet. This tweet illustrates Jessica's interaction with social media during her interview.

In my role as the instructor, I also showed pre-reflective thinking assumptions by combining a hashtag and links. I attempted to connect perception, a scheduled topic for in-class discussion, to evidence available from links to Vimeo and Bloomberg media files. For example, I made reference to perception in the context of "stingrays" and a popular hashtag, yet I failed to rationalize plausible reasons why either associated with

meaning to “ch 2.” Instead, my tweet showed certainty that these two examples exemplified perception.

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*Quasi-reflective thinking.* Other interactions with optimized social media features showed more advanced personal epistemologies within MARK 310 students. Through their use of optimized features, students intertwined Stages 4 and 5 quasi-reflective assumptions to integrate evidence about ill-structured problems they observed in MARK 310. For example, Lana optimized social media by incorporating an @ mention for “@Tostitos” based on her interpretation of documentation provided by Team Jay. She sought to further justify her beliefs through the perspective linked to recipes provided by Tostitos’ manufacturer. Lana’s optimization of social media features showed she interpreted “@Tostitos” and the information available through the external link as relevant to her process of knowing about *AdAge* Jay’s ill-structured problem. Lana’s belief about salsa as healthy showed her idiosyncratic use of opinion, yet she evaluated the link she included as more relevant than other available evidence – widely available in Twitter’s context - to substantiate her interpretation. She took full advantage of social media by using two optimized features – @ mention and a link – to justify her knowledge using intertwined quasi-reflective assumptions.

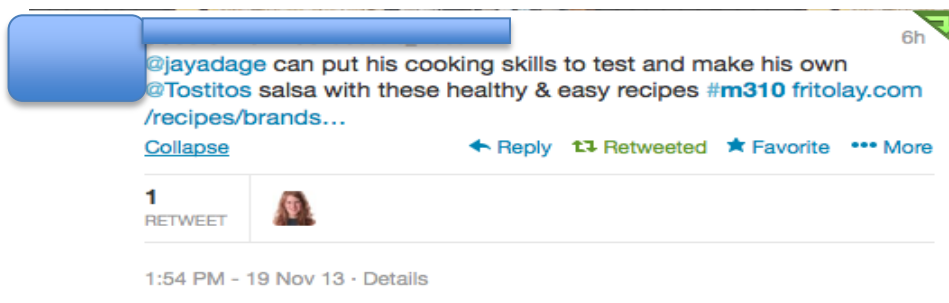


Figure 17. Archival data. This tweet illustrates Lana’s use of quasi-reflective assumptions by including a @ mention and link.

Kasey and Cindy similarly integrated evidence through use of hashtags during their social media interactions with Team Alfredo's roundtable. They incorporated hashtags that represented their idiosyncratic opinions and context in which they justified their beliefs about MARK 310 course content. Kasey connected the ill-structured problem *AdAge* Alfredo faced about food consumption to the importance of “#hedonic” motivations. Cindy connected the potential for *AdAge* Alfredo to purchase a “#newcar” directly to “#motivation” and the tension between “#needsvs wants”. Both students added hashtags they evaluated as more relevant than other evidence from Team Alfredo's documentation. Each hashtag represented the integration of the student's justification of MARK 310 course content and the contents' fit with their quasi-reflective concepts of justification.

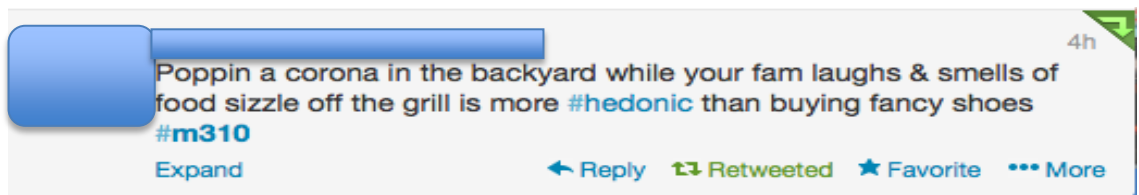


Figure 18. Archival data. This tweet illustrates Kasey's use of quasi-reflective thinking assumption by including a hashtag.



Figure 19. Archival data. This tweet illustrates Cindy's use of quasi-reflective thinking assumption by including a hashtag.

During his interview, Jake selected an optimized tweet from *AdAge* that included @ mention and link. Jake's selected tweet linked evidence he interpreted to represent his

concept of justification about the ill-structured problem available through the social media environment. Jake interpreted content made available through the optimized features by expressing his idiosyncratic beliefs about journalists. Although he did not directly reference “@shafqatislam” as the journalist @ mentioned in the tweet, Jake interpreted journalists’ responsibilities throughout his interview. Yet, he showed uncertainty and limited knowledge about their roles. For example, he stated, “...it's kind of saying that journalists don't really do their research which is true sometimes.” Further, he used his selected tweet as available to justify his beliefs within the given context.

When asked to describe what he thought about the tweet’s contents, Jake stated,

I would say it's definitely a headline to get your attention but it definitely has some valid points saying that it's impossible to really not have any biases which is a very valid point that I full heartedly believe in but at the same time it's kind of saying ...kind of crossing out journalists a little bit saying that there are not really safeguarding ethics which you can say...you can disagree with whatever...which I kind of agree with but at the same time that's their occupation and you can't really blatantly say a statement like that in my opinion but I would say that it's definitely very interesting and agreeable article.



Figure 20. Interview tweet. This tweet illustrates Jake’s interaction with social media during his interview.

students' concepts of justification by creating relationships to evidence they uncovered and judged via social media. In doing so, students showed capacity to use reflective thinking assumptions. For example, Aaron's contribution to Team Rosemary's roundtable integrated a hashtag and @ mention of Mintel, a global market research and market research firm. Instead of providing his classmates with the hyperlink to Mintel's data about wine consumption, Aaron judged Mintel's data and reported his evaluation via social media in the context of Team Rosemary. Additional data was available via @Mintel, yet Anthony judged perspectives about loyalty and pricing as better than other data to show his knowledge required integration of evidence and context via social media. Further, he compared his evaluation of @Mintel data by use of the hashtag "#ExpensiveDate." The hashtag showed Aaron's knowledge substantiated by the data he extracted from @Mintel.



Figure 21. Archival data. This tweet illustrates Aaron's use of reflective thinking by including a @ mention, hashtag, and question supported by evidence.

***Counterexample.*** Finally, although students integrated evidence by optimizing 101

social media features, some tweets that included optimized features did not share content to represent MARK 310 students' personal epistemologies. In particular, some students showed ability to include available features, yet use of the feature lacked integration of evidence or connection to complex context. Accordingly, students' use optimized features failed to demonstrate integrated evidence. The optimized features instead stood on their own without context for other students to interact with the evidence connected by the feature. For example, Mia initiated a tweet during Team Chris's roundtable that included an external link to a YouTube clip. However, Mia made no connection to ill-structured problems faced by *AdAge* Chris. She included the text "Windows vs. Apple," yet she failed to justify her content as relevant evidence she evaluated from watching the YouTube link. The link made no distinct connection to Mia's personal epistemology through integration of evidence but instead showed her inclination to use social media for the sake of use when the tool was available.

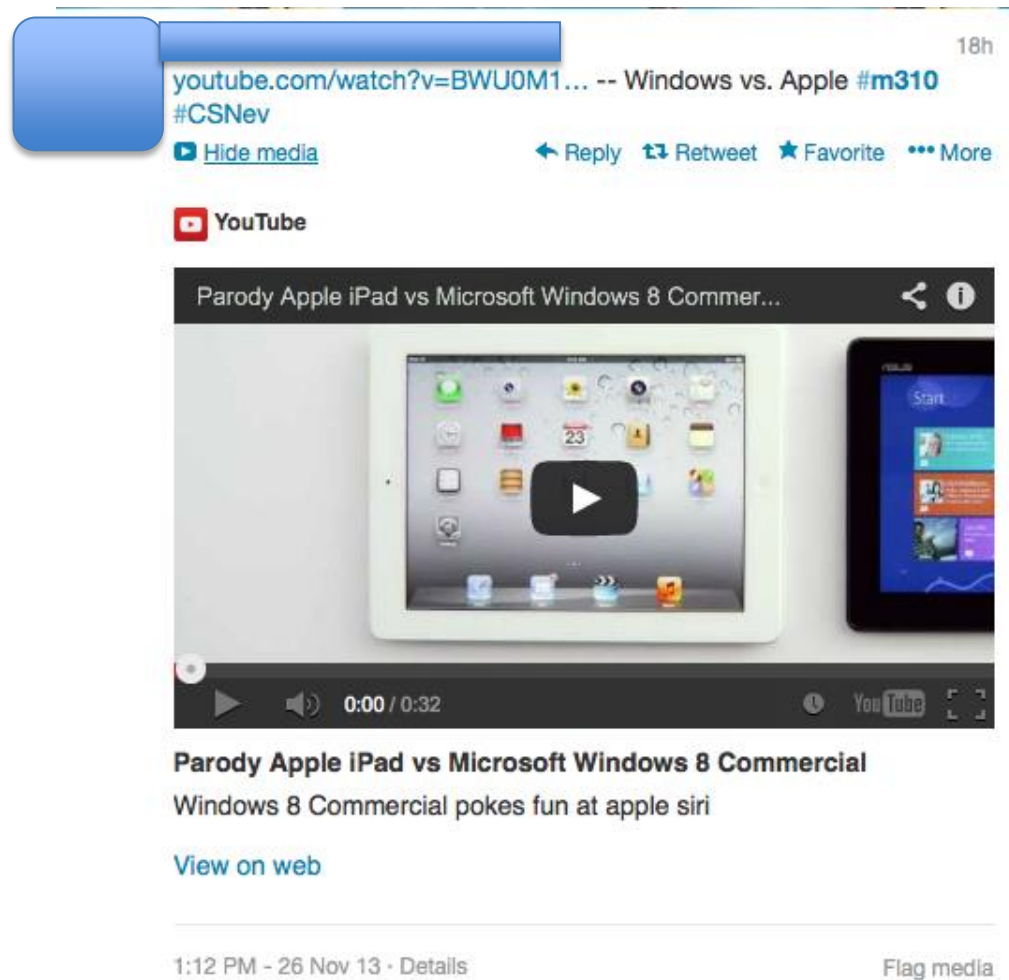


Figure 22. Archival data. This tweet illustrates a counterexample of Mia's use of social media to include a link.

*Summary of Theme 2.* When MARK 310 students integrated evidence, they optimized social media features, and in doing so, they used a range of Reflective Judgment Model stages. Optimized features, including @ mentions, hashtags, and links, did not consistently represent students' recognition of ill-structured problems, so use of optimized features instead represented their certainty. Yet, other social media interactions support students' integration of evidence they connected through use of the features. In doing so, optimizing features represented intertwined quasi-reflective thinking



assumptions. When students used reflective assumptions, their attempts to integrate 103  
evidence formed relationships within the context; in doing so, the integration of evidence  
– conveyed by optimized features – implied students’ tentative judgments about the  
points of view emphasized in the social media interaction. The optimized social media  
features used by MARK 310 students showed that interaction with Twitter and exposure  
to ill-structured problems about marketing holds potential for students to interpret,  
evaluate, and relate evidence, thus strengthening their views of knowledge and concepts  
of justification.

## CHAPTER FIVE

### CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This case study described students' experiences in MARK 310, a Consumer Behavior course, as they demonstrated stages of the Reflective Judgment Model (King & Kitchener, 1994) using social media interactions. The purpose of this study was to describe how social media interactions provide opportunities for Generation Y students to practice assumptions of Reflective Judgment Model stages (King & Kitchener, 1994). In Fall 2013, MARK 310 students voluntarily used social media as a tool during the Paradox of Choice (PoC) *AdAge* Consumer Insights Roundtables (CIR) in-class project (Appendix A). Additionally, in Spring 2014, ten MARK 310 interview informants used social media to identify and reason about ill-structured marketing problems.

Through interview and social media archival data, the case study revealed that Generation Y business students used a range of assumptions within Reflective Judgment Model stages. Social media archival data showed students' use of quasi-reflective thinking assumptions. More than half of social media archival data was coded as representative of quasi-reflective thinking. Interview data, however, suggested that while students pressed to use quasi-reflective assumptions, they primarily used pre-reflective thinking assumptions to reason about the ill-structured problems exposed to them via social media. Coded interview data showed that although thirty-eight percent of interview quotes represented quasi-reflective thinking, nearly fifty-five percent showed use of pre-reflective thinking assumptions. These findings provided support for the two

propositional statements that guided this case study: 1) Interaction with Twitter 105 and exposure to ill-structured problems about marketing led students to interpret, evaluate, and relate evidence, thus strengthening their views of knowledge and concepts of justification, and 2) Interaction with Twitter and exposure to ill-structured problems about marketing enabled students' quasi-reflective development, thus preparing them for reflective thinking.

Chapters One and Two focused on the need to understand how social media in the classroom provides a potential set of tools through which to describe Generation Y business students' personal epistemologies. Current definitions and functionality of social media within both within the marketing field and marketing education were discussed. Additionally, I introduced cognitive development literature in the personal epistemology domain with focus on King and Kitchener's (1994) Reflective Judgment Model as the theoretical framework for this case study. Chapter Three discussed the methodology of case study and procedures for data generation and pattern matching. Chapter Four discussed the results of the analysis by sharing patterns of evidence from interview and social media archival data. Within students' range of assumptions used, two salient themes emerged that demonstrated how students used social media to reason about ill-structured problems. Finally, Chapter Five, this section, draws conclusions based on the analysis.

### **Conclusions and Implications**

I structured this case study to represent King and Kitchener's (1994) Reflective Judgment Model. Through this framework, conclusions and implications can be drawn based upon the evidence generated from interview and social media archival data.

Specifically, this case study aimed to describe how social media interactions provide opportunities for Generation Y business students to practice assumptions of Reflective Judgment Model stages. The research questions for this study, therefore, were: 106

1. What evidence of pre-reflective, quasi-reflective, and/or reflective stages is demonstrated via social media interaction? How does social media interaction enable reflective thinking in an advanced marketing course?
2. How do students make judgments about ill-structured marketing problems when using social media?

These research questions were supported by theoretical propositions. Per Yin (2009), propositions support relevant evidence for examination within the scope of the study. Therefore, propositions for this case study are listed below. Additionally, refer to Figure 2, the conceptual framework that guided this case study.

1. Interaction with Twitter and exposure to ill-structured problems about marketing will enable students' quasi-reflective development, thus preparing them for reflective thinking.
2. Interaction with Twitter and exposure to ill-structured problems about marketing will lead students to interpret, evaluate, and relate evidence, thus strengthening their views of knowledge and concepts of justification.

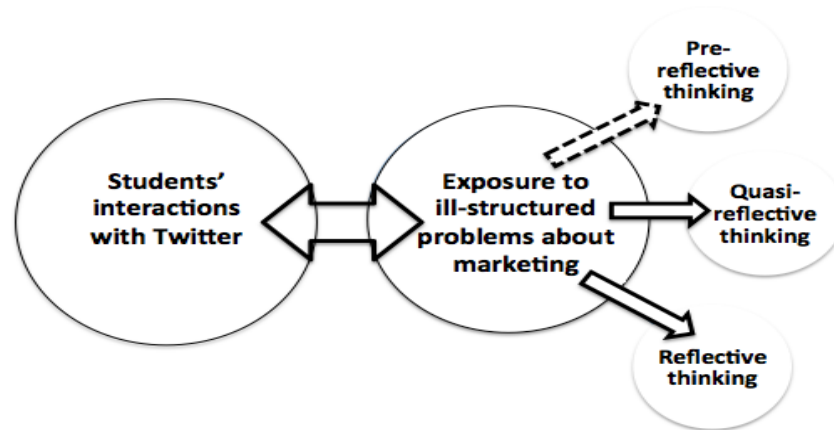


Figure 2. Conceptual Framework. This figure illustrates the relationships of the propositional statements to the theoretical propositions from the Reflective Judgment Model (King & Kitchener, 1994).

Based on data generated in support of the above research questions and propositions, this case study delivered preliminary insights about social media's capacity to support advancement to reflective thinking in Generation Y business students. To discuss conclusions and implications, this chapter is organized as follows. First, I offer a review of King and Kitchener's (1994) Reflective Judgment Model, the theoretical framework of this case study. Next, I discuss conclusions based on the patterns discussed in Chapter 4. Based on these conclusions, I discuss implications as broader abstractions. I also provide recommendations for practice through an updated typology. Lastly, I connect the conclusions to future research recommendations. Growing interests in netnography and Ignatian pedagogy provide methodological and subject area interest for continued inquiry. I conclude this case study with my final remarks.

I selected King and Kitchener's (1994) Reflective Judgment Model as this case study's theoretical framework. The authors distinguished their model within the cognitive development literature by focusing on two distinguishing features. First, King and Kitchener's (1994) model depends on understanding students' epistemic assumptions, or views of knowledge. Second, the Reflective Judgment Model acknowledges a variety of problem structures with which students interact. It is important to understand these special features of King and Kitchener's (1994) model to describe the stages of reflective thinking demonstrated by students in MARK 310. When students were exposed to ill-structured marketing problems and were able to interact with Twitter during their MARK 310 experiences, they used a range of assumptions with the Reflective Judgment model's three major stages, pre-, quasi-, and reflective thinking.

First, King and Kitchener (1994) demonstrate that educators largely overlook epistemic assumptions held by their undergraduate students. Established learning theories (Churchman, 1971; Paul, 1990) that reinforce, for example, logic skills through deductive and inductive reasoning, press students' problem solving skills. When students practice such skills in higher education, they practice seeking accurate answers and accordingly, they assume that correct answers, in fact, exist. Educators' perpetual use of deductive and inductive problems, based on logic, relies on students' willingness to accept that all problems merit solutions. Prominently providing students logic-oriented problems shows a deficiency in higher education to acknowledge students' views about knowledge.

Lacking full understanding of students' epistemic assumptions has sometimes led to student perceptions of educators as authorities who hold the truth to critical thinking

problems (Perry, 1970). Inadequate regard for students' personal epistemologies fosters <sup>109</sup> a reliance on rational, step-by-step processes or equations that students can generally apply to situation to reach a conclusion (King & Kitchener, 1994). Should students develop knowledge in an environment that cultivates a "one-size-fits all" approach to problem-solving, their ways of identifying problems that do not align with accepted heuristics may be underdeveloped. Thus, students may lack readiness when they transition from undergraduate studies to young adulthood, where concepts of justification will not always resemble what is practiced in classrooms (Peltier, Hay, & Drago, 2005).

To support their emphasis on personal epistemology, King and Kitchener (1994) identify problem structure as an important consideration to examine reflective thinking. The authors accepted Wood's (1983) problem structure definition as "the degree to which a problem can be described completely and the certainty with which a solution can be identified as true or correct" (p. ). The Reflective Judgment Model accounts for students' individual epistemologies to interact with ill-structured problems, also referred to as "truly problematic" or "vexing" (King & Kitchener, 1994, p. 11). Common to the identification of ill-structured problems is the absence of certainty expressed by the student to make defensible judgments about the problem's resolution. Students rely on their personal epistemologies to press for a resolution. However, within the Reflective Judgment Model, these conclusions may never be reached. A solution to the problem is not important but rather that students accept uncertainty as an inherent part of the reasoning process. Refer to Figure for an outline of Reflective Judgment Model stages.

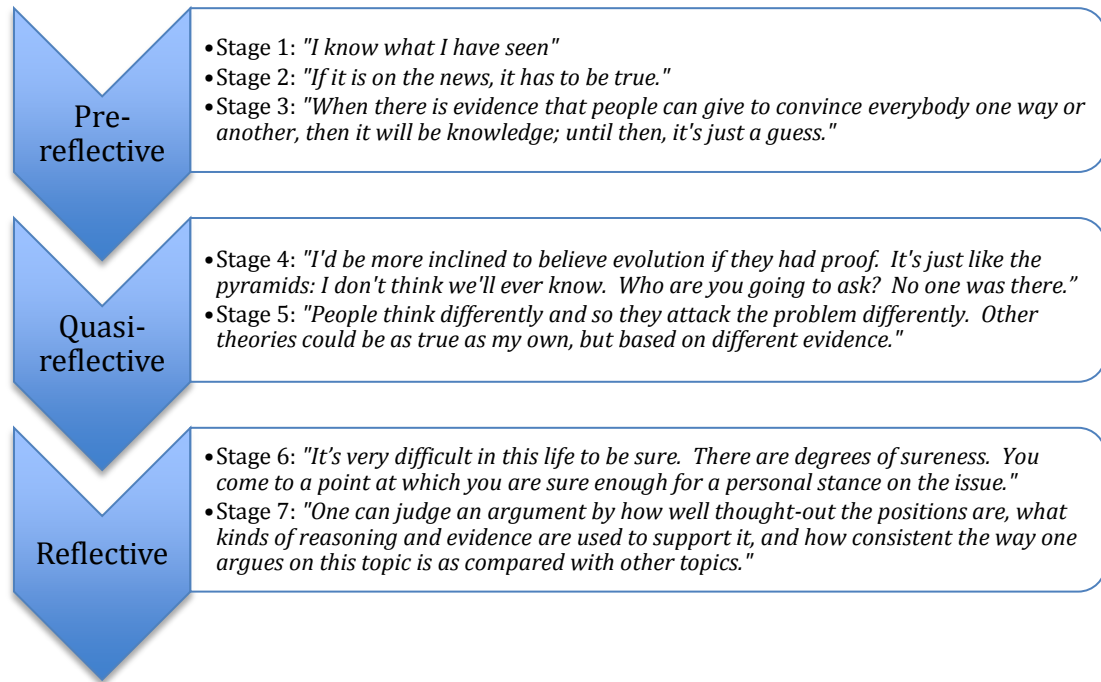


Figure 1. King & Kitchener's (1994) Reflective Judgment Model Stages. This figure illustrates this study's theoretical framework.

Additionally, King and Kitchener (1994) repeatedly suggest pedagogy objectives to empower students to see the world as complex. For example, reflective thinking, at Stages 6 and 7, requires that knowledge be actively constructed. Students who practice reflective thinking actively create meaning from the uncertainty they have experienced when faced with ill-structured problems. They attempt to fill gaps of knowledge by seeking evidence across multiple contexts to justify alternative resolutions. Their process of knowing, therefore, is not passive. Per King and Kitchener (1994), students experience Stage 6 when "the spectator view of the knower that characterizes earlier thinking will no longer suffice" (King & Kitchener, 1994, p. 66). Providing students with an action-oriented environment, therefore, should be prioritized when designing courses and selecting tools that support the development of students' personal epistemologies through Reflective Judgment Model stages.



Accordingly, this case study aimed to centralize an understanding about personal epistemologies by describing MARK 310 students' exposure to ill-structured problems and interactions with social media as they attempted to make "defensible judgments" (King and Kitchener, 1994, p. 1). Social media provided MARK 310 students a tool through which students showed their reasoning using a range of reflective thinking assumptions. Through use of social media, MARK 310 students activated attempts to construct meaning for marketing problems. They used a range of reflective thinking assumption in their attempts to negotiate meaning in the presence of ill-structured problems available through social media interactions. Although MARK 310 students rarely used the most advanced assumptions to resolve ill-structured problems, patterns within interview and social media archival data showed students attempts to reason when faced with inadequate data, uncertainty, and an element of ambiguity.

## **Conclusions**

For MARK 310 students, social media provided a tool through which students identified ill-structured problems and expressed their ways of knowing. Although only one percent of social media archival data showed reflective thinking in social media interactions, the central pattern holds potential for students to effectively use social media to support cognitive development. The pattern of evidence substantiated by this case study suggested social media in the classroom may support the advancement of students' capabilities to identify ill-structured problems and to reason with evidence. This advancement is important in that Generation Y learners continue to develop and show potential to eventually use reflective thinking assumptions even though this study described these learners within quasi-reflective stages. Acknowledgement that students

expressed quasi-reflective thinking assumptions approximately twice as frequently than <sup>112</sup> pre-reflective thinking assumptions per social media archival data showed capacity for social media to provide context appropriate for students to practice reasoning skills and develop their ways of knowing.

However, the divergent pattern between frequencies of coded interview and archival data also provided valuable insight. Although students used quasi-reflective thinking assumptions less frequently during interviews than in archival data, students nevertheless pressed for stronger reasoning in social media interactions. In other words, quasi-reflective thinking was not absent from interview data despite not being as prevalent as in archival data. Students did not use quasi-reflective thinking assumptions as frequently during interviews, yet I coded quasi-reflective thinking with adequate frequency to show students' capacity for use. Although this suggested students less frequently identified ill-structured problems during their interviews, the interview experience provided a dissimilar context – compared to the in-class MARK 310 experience – through which to interact with social media. The interview protocol did not allow students to directly generate original social media interactions. Instead, social media interactions occurred during the interview when students selected a pre-existing tweet. Students then used their selected tweets to respond to Reflective Judgment Interview questions. In doing so, they used a range of assumptions to verbally share their ways of knowing. They relied more frequently on pre-reflective assumptions, thereby showing less use of evidence yet more certainty to share their assumed knowledge.

This pattern of findings suggested that oral reasoning did not provide as complex a platform through which students might justify knowledge about ill-structured problems.

Instead, the in-person dialogue that occurred during interviews more closely resembled 113 standard classroom contexts in which offline discussion is emphasized. It is plausible the design of the interview prompts and the setting in which the interview was administered limited the students' capacity to reason using advanced Reflective Judgment Model assumptions. The use of pre-reflective thinking assumptions during the interview setting does not imply students' lacked skill to advance to Stages 6 and 7 but instead that the interview lacked sufficient context. When students' social media interactions generated archival data, their personal epistemologies developed within the complex context available through Twitter. Acknowledgement that quasi-reflective thinking occurred more frequently in archival data supported the potential social media holds as a tool to advance cognitive development.

### **Implications**

Given the range of Reflective Judgment Model assumptions used and the ways in which MARK 310 showed personal epistemologies, broader implications for this case study include Generation Y students' expressions of (1) curiosity, and (2) interactivity.

**Expressions of curiosity.** When MARK 310 students used social media to express uncertainty and limited knowledge, social media provided a platform through which students readily used questions as part of their personal epistemology development. Students asked questions to their classmates during CIR projects, and students selected questions via social media during interviews. In doing so, students manifested curiosity in attempt to resolve part of the ambiguity that led to their initial inquiry. Although the use of questions ranged in expressions of certainty and knowledge, these questions signaled students' curiosity to seek adequate evidence from MARK 310

course context. Hill and McGinnis (2007) define curiosity as “our exploratory instinct 114 expressed in exploratory behavior in the form of questioning, seeking that which is absent, new, or different” (Hill & McGinnis, 2007, p. 53). This case study’s findings suggest the importance of recognizing curiosity amongst Generation Y business students. Students’ inquisitive reactions to problematic scenarios on social media indicated their acceptance of missing information. Students recognized this absence as insufficient evidence about ill-structured problems. Or, students expressed less adequate knowledge about course topics related to ill-structured problems. Even when faced with areas of inadequacy, students continued to interact with social media to question additional ill-structured problems. Otherwise stated, students pressed through uncertainty and limited knowledge to show curiosity. In short, “thinking and questioning go hand in hand” (Hill & McGinnis, 2007, p. 53).

What this study’s implication contributes to the growing body of marketing education literature, therefore, is the bridge to understand how use of social media and reflective thinking co-exist with curiosity. Acknowledgement that Generation Y students are inclined to encounter ill-structured problems via social media and to respond with curiosity holds promise that Generation Y shows interest in the learning process and not only the product of a body of knowledge. Literature suggests social media users seek the “wisdom of crowds” (Harper, Moy, & Konstan, 2009 p. 1). Further, questions Generation Y students generated via social media archival data resemble informational questions (inquiry intended to produce fact or guidance) or conversational questions (inquiry intended to generate discussion or express self) (Harper, Moy, & Konstan, 2009). Accordingly, this case study implies conceivable attention upon which faculty might

offer to acknowledge types of students' questions to imply curiosity. Students' willingness to interact with questions, as their personal epistemologies develop, indicated students' acceptance of inadequate evidence. Yet, recent emphasis on critical thinking (Hill & McGinnis, 2007) may have replaced inclination to distinguish curiosity in higher education classrooms. Stressing critical thinking aims to supply students with content pertaining to discipline specific knowledge, yet over emphasis on subject area expertise limits encouragement to more deeply inquire about ill-structured problems associated with the knowledge.

The shift to emphasize critical thinking instead of curiosity inadvertently exchanged self-discovery in learning (Peltier, Hay, & Drago, 2005) to solely equip students with subject area knowledge. This case study holds merit in that MARK 310 students pressed past limited subject area knowledge to nonetheless question the ill-structured problems they faced. Interestingly, even when answers or responses were not readily available as resolution, students' continually used social media to ask and select questions. Very few questions elicited direct responses for students who initiated questions, yet students continued their inquiry through social media interactions. Nonacademic use of Twitter has noted that not all tweets are reciprocated with a reply despite some users' intentions to seek information through conversation (Honeycutt & Herring, 2009). Peltier, Hay, and Drago (2005) encourage instructors to build environments that provide openness for divergent views by fostering inquiry. Yet, the authors also suggest students' peers motivate "divergent thinking" (p. 260) as a means to achieve a solution oriented outcomes. Hill and McGinnis (2007) endorse a "community of inquiry" (p. 57) through which embracing ambiguity provides an environment for a

“greater array of students’ questioning” (p. 60). What this case study’s first implication 116 provides to the literature, therefore, is the connection between use of social media to stimulate cognitive development and a shift to highlight students’ innate curiosity within this development.

**Expressions of interactivity.** Furthermore, this case study’s findings imply that Generation Y students centralize interactivity as part of personal epistemology development. When MARK 310 students used social media to integrate evidence, they optimized social media features including @ mentions, hashtags, and external links to make connections amongst evidence in a complex context. Each feature connected our class to evidence and demonstrated how students integrated evidence in their processes of knowing. Instead of limiting integration of evidence to, for example, Consumer Behavior (Solomon, 2012) textbook material, students’ openness to interactivity extended to optimize evidence they autonomously uncovered via social media’s features and evaluated as relevant to understand the ill-structured problem. Although literature points to @ mentions as amongst the most interactive feature Twitter offers (Honeycutt & Herring, 2009), this case study’s prevalence of hashtags supports “information diffusion on Twitter” (Cunha, et al., 2011, p. 60). Moreover, students’ interactivity with these features implied strengthened reputations and identities (Kietzmann, et al., 2011) that pressed students’ interactivity with evidence in established, public online conversations. Limited knowledge and uncertainty, associated with less developed personal epistemologies, did not prevent students’ interactivity as a way for them to develop views of knowledge.

Implications for interactivity distinguish this case study's contribution by involving interactivity to promote students' cognitive development. Previous studies suggested Web 2.0 tools, including social media, provide a means to connect, network, and collaborate, amongst other utilities (Granitz & Koernig, 2011). Although Granitz and Koernig (2011) discuss the types of relationships potentially formed by use of tools like social media, their recommendations lack how to effectively optimize "personal and virtual interactions" (p. 60). Moreover, Kilian, Hennigs, and Langner (2012) underscore "social interaction" to motivate media usage to "connect with family, friends, and society" (p. 116). The authors point to the development of social media to support findings that suggest social interaction as a less important motivation for social media use. Instead, information gathering, identity building, and entertainment motives surpass the importance of social interactions within social media (Kilian, Hennigs, & Langner, 2012). Accordingly this case study's contribution to the marketing education literature connects the goals of interactions suggested by Granitz and Koernig (2011) to the information motive suggested by Kilian, Hennigs, and Langner (2012).

### **Recommendations for Practice**

The value of this case study is found in the narratives of Generation Y business students who used reflective thinking assumptions when interacting with social media. Data triangulated from two data generation methods, interviews and social media archival data, shows valuable insights for faculty interested in adopting social media into classroom settings. Concluding that social media implies Generation Y business students' capacity for curiosity and interactivity supports the incorporation of this study's findings into pedagogical decisions.

This section provides considerations for educators to support the development 118 of their students' personal epistemologies in an academic environment that permits social media interaction. Specifically, I will share recommendations as a typology that emphasizes how to embed social media interaction into business and marketing education classrooms. As the marketing education literature revealed (Granitz & Koernig, 2011; Kaplan & Haenlein, 2011; Kietzmann, et al., 2011), social media achieves a range of outcomes. Consequently, students have adopted social media with a range of frequencies e.g. devotees, dabblers, omnivores, and samplers (Hargittai & Hsieh, 2010). Given numerous uses and outcomes combined with students' frequencies of use, the existing inclination to pilot social media in marketing courses now shifts to focus the use of social media as a tool through which to centralize students' personal epistemologies. By maintaining focus on personal epistemologies, educators may purposively encourage students' justification of their knowledge in a dynamic environment populated by complexities unique to social networking sites. Figure 23 illustrates the recommendations for practice.



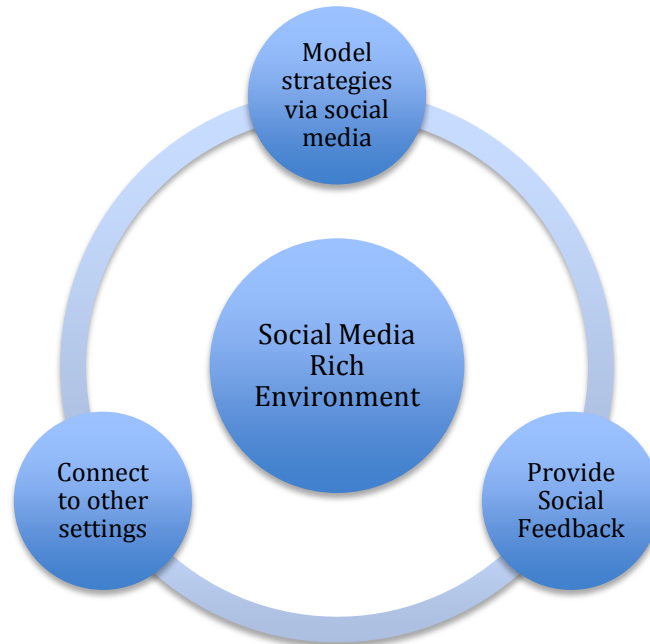


Figure 23. Recommendations for practice. This figure illustrates the relationship amongst conditions for educators to implement.

### **Create an Environment Rich in Social Media Interactions**

First, educators interested in stimulating the possibility for advanced reflective thinking amongst their Generation Y business students need to create opportunities for social media interaction. The environment constructed by educators should readily accept all patterns of social media interactions. The environment in MARK 310, which readily encouraged social media interaction, served as one of the most important conditions in this case study. I encouraged students to interact with social media throughout the semester in MARK 310. Archival data generation captured 373 tweets during seven iterations of the Consumer Insights Roundtable project. The CIR project description minimally required MARK 310 to use social media in order to share project documentation and a team hashtag, yet all other social media usage during Fall 2013 was voluntary. Of the ten interviews completed in Spring 2014, four of the participants rarely

used social media to interact with classmates during CIR projects. Although these students did not directly post tweets using the #m310 course hashtag, direct and participant observations (as well as my journaling) indicated the students' contributions to the social media context in MARK 310. Two of these interview informants, for example, presented the ill-structured problems facing *AdAge* Andrew. Observations of their presentation showed the class as a whole generated more archival data than any other CIR team. The presenting team's chosen hashtag, #v4andrew trended within the Twitter community, thus indicating the frequency of tweets Team Andrew lead its classmates to post. The complexity of content shared during Team Andrew's in-class presentation showed these informants both reasoned using quasi-reflective assumptions while simultaneously motivating the class to express its assumptions via social media. When prompted with interview questions, these two informants maintained their reasoning patterns in the context of the tweets to which they responded. Nonetheless, quasi-reflective thinking resulted in interview data. Therefore, students autonomously chose to interact with social media using sets of assumptions that supported how they made sense of their experiences with ill-structured problems in the context of MARK 310. In other words, the students customized social media interaction to best fit their concepts of justification, so the environment provided by MARK 310 acknowledged and accepted their individual views of knowledge across the range of Reflective Judgment Model assumptions.

The centralized environment for social media interaction, therefore, included at least two key opportunities for students' exposure with ill-structured problems via social media interactions. Students in MARK 310 were either directly or indirectly exposed to

course content via social media interaction. At a minimum, students interacted with social media through indirect exposure. Some students' interactions with ill-structured problems via social media did not extend beyond seeing the Twitter feed I projected to start each class session throughout the semester (prior to the commencement of the CIR projects). It is also plausible that students indirectly interacted with ill-structured problems via their classmates' social media interactions. These students may have read, on their own devices, the reasoning classmates shared via social media. Yet, they refrained from directly contributing evidence themselves, thus maintaining indirect interactivity within the MARK 310 environment. Conversely, direct interaction included willingness to post concepts of justification – by asking questions or in the form of @ mentions, hashtags, links – in the context of ill-structured problems relevant to MARK 310. Although interactions expressed a range of assumptions within the Reflective Judgment Model stages, the direct interaction with social media aligned with the course environment that centralized exposure to ill-structured problems.

Therefore, creating an environment that centrally combines social media interaction with exposure to ill-structured problems is recommended as the first step to support a shift to emphasize personal epistemologies amongst Generation Y business students. This recommendation fits Lowe and Laffey's (2011) suggestion to avoid assessing messages sent through Twitter in order to avoid intruding on personal, external usage of the tool. Cultivation of such an environment aligns with King and Kitchener's (1994) endorsement that "interactions with the environment strongly affect an individual's development" (King & Kitchener, 1994, p. 228). The authors suggest that educators who purposefully attend to environmental conditions available for students

show appreciation for the predictability of reflective thinking stages. Simultaneously, 122 these constructed environments accept variability of the rates of students' reflective thinking development. While Generation Y business students may arrive to courses, like MARK 310, with conceptual skills needed for optimal levels of thinking, constructing an environment that embeds relevant ill-structured problems within the practice of social media interactivity advocates for reflective judgment within Web 2.0 context.

### **Model Strategies via Social Media**

By centralizing an environment that combines exposure to ill-structured problems with social media interaction, educators next ought consider how to model interactions for their Generation Y students. As educators, one of our greatest responsibilities includes modeling professionalism and the values of our institutions. This responsibility now reasonably shifts to model behaviors between offline and online environments. In the context of this case study, modeling social media interaction was a necessary implication for me, as the instructor, to prompt students' use of social media for exposure to ill-structured problems. Although this recommendation to model appropriate use of social media aligns with existing literature (Dunlap & Lowenthal, 2009), the current recommendation extends to modeling our own ways of knowing beyond "sustained communication" (Dunlap & Lowenthal, 2009, p. 133).

As previously discussed, MARK 310 provided an environment that exceeded "ordinary circumstances" (King & Kitchener, 1994, p. 35). My active interaction on social media also customized this environment for MARK 310, and I used my customized interactions to model my own attempts to use Reflective Judgment Model assumptions. Throughout the semester and before CIR projects commenced, I initiated

course content using a tweet I posted to social media within thirty minutes of each class<sup>123</sup> session. I strategically included #m310, the course hashtag, to generate initial awareness about the use of social media in our course and to connect MARK 310 students to relevant scenarios intended to strengthen the session's scheduled topic. Projecting the tweet I posted provided students with visibility to what social media interaction looked like in an academic setting. By posting and projecting these interactions at least twice weekly, I attempted to express my own concepts of justification. I integrated evidence available within a boundless array of possible ill-structured problems available within social media. I positioned the evidence I selected as more relevant than all other evidentiary examples available, including those in the Solomon (2012) Consumer Behavior textbook. I targeted my social media interactions to reinforce the discussion for the seventy-five minute class session by providing what I judged to be the most compelling evidence to fit to the textbook theory.

However, I made no indication that I posted the "right" or "accurate" message. Yet, this also provided a springboard for MARK 310 to connect to the scheduled topic and possible ill-structured problems associated with that topic. Please refer to Appendices H-K to review my interaction with MARK 310 students via social media.

More specifically, I recommend that instructors model their own ways of knowing through characteristics represented by this case study's salient themes. As the two salient themes suggested, 1) MARK 310 students used social media to express uncertainty and limited knowledge, and 2) MARK 310 students used social media to integrate evidence. Instructors, therefore, who model traits associated with how students used social media to

practice more advanced reflective thinking assumptions press their students to manifest 124 potential for improved support of cognitive development.

**Modeling questions.** I encourage educators to use social media to ask questions that emphasize ill-structured problems related to course content. Instructors who directly use social media to originate questions about ill-structured problems show students that they too may not have all the answers yet accept curiosity as a form of experiencing wonder (Hill & McGinnis, 2007). The questions asked by instructors via social media need not “quiz” students’ knowledge (so as to perpetuate well-structured problems) but genuinely reveal ambiguous situations for students’ to practice expressing uncertainty and limited knowledge via social media. Students, especially those in upper-level undergraduate courses like MARK 310, emerge from pre-requisite courses that may have fostered reliance on instructors as “the authority” with “the truth” (King & Kitchener, 1994, p. 14). Instructors who ask appropriate questions in an environment open to social media not only express curiosity via social media but establish that reasoned conclusions require more complex justification for the student than accepting answers presented from instructors.

**Modeling optimized social media functionality.** In addition to modeling use of questions via social media, I also recommend that instructors integrate evidence via optimized use of social media features. MARK 310 students voluntarily optimized social media features as a way to integrate evidence as part of their ways of knowing. In doing so, they used a range of assumptions within the Reflective Judgment Model stages to enrich their patterns of reasoning. Optimized features used by MARK 310 students included integration of @ mentions, hashtags, and external links. Although literature

suggested Generation Y students do not uniformly accept social media as learning tools <sup>125</sup> (Kennedy, et al., 2007), MARK 310 students showed interactivity to optimize social media's functionality. In the context of MARK 310, students' social media usage aligned with expectations that Generation Y readily accepts social media (Prensky, 2001; Tapscott, 1997). Accordingly, instructors who model use of @ mentions, hashtags, and links show openness and reciprocity to interactivity through evidence valued as relevant to ill-structured problems. Because @ mentions, hashtags, and external links provide additional layers of information within social media, the instructor who optimizes these features connects students to publicly available evidence evaluated as important to the process of justification. Here again, instructors frame their own reflective thinking to include their idiosyncratic and ongoing search for relevant data about ill-structured problems. Although some literature points to ineffective use of hashtags, for example, that leads to "persistence" or decay of meaning (Cunha et al., 2011), educators are encouraged to include hashtags within their constructed social media environments as a way to integrate evidence. Furthermore, this openness to interactivity with evidence via optimized social media features does not diminish instructors' subject area expertise. This type of usage also does not categorize the evidence linked by the @ mentions, hashtags, and external links as "right" or "correct." It instead adds relevant context in which students can extract evidence to continually strengthen their perspectives through interactivity with evidentiary context.

**Provide social feedback.** Upon customizing an environment and modeling ways to prompt personal epistemology development, I recommend that educators also use social media to provide social feedback. In an effort to continually incorporate

characteristics of this study's salient themes, providing feedback via social media aims 126  
to focus on ill-structured problems and apply implications for curiosity and interactivity.

To emphasize curiosity and interactivity, educators' feedback articulated on social media might deemphasize performance objectives and accuracy of knowledge to favor the process students endeavor to make defensible judgments. This recommendation marks a departure from current feedback practices in higher education. Typically, instructors informally or formally share feedback as qualitative comments and suggestions to enable improved future performance (Ackerman & Gross, 2010). However, feedback frequently emphasizes "what it can tell about the teacher's expectations, and becomes a part of a vicious spiraling-in towards 'performance goals'" (Yorke, 2003, p. 489). Moreover, the practice of sharing feedback potentially initiates a barrier between the instructor and student based upon the complexity of language used (Carless, 2006). In the context of this case study's findings and implications, it follows that social media holds potential for educators to post feedback messages that articulate Generation Y students' attempts to develop views of knowledge.

Of distinction is the way in which students encounter feedback from instructors. Per this recommendation, the structure of feedback messages extends to implement characteristics of this study's salient themes. By communicating questions and optimizing features as feedback to students' social media interactions, educators potentially motivate students' cognitive development by favorably interfering with the language "discourse" (Carless, 2006, p. 221) hurdle that delimits standard feedback.

Although providing feedback to students about performance is not a novel consideration (Yorke, 2003; Wood, 1987), conveying feedback via social media invites



unique considerations. Use of questions and optimized features warrants recognition of 127  
use public-facing online environment. Therefore, practicing greater discretion to tend to  
students' cognitive and emotional development is recommended (King and Kitchener,  
1994, p. 246). King and Kitchener (1994) indicated, "Good teachers are known for their  
creativity and innovation in adopting their feedback to the nature of the student's  
response" (p 232). Through this case study's implications, social media provides a new  
channel for instructors to achieve "respect for students" (p. 231) irrespective of the  
students' current position within the stages of reflective thinking. By using and modeling  
social media interactions alongside students' social media interactions, instructors hold  
potential to respond by addressing the missed opportunity in students' justification.  
Connecting feedback to ways of knowing supports the importance of curiosity and  
interactivity as this case study's implications.

**Connect to other settings.** Finally, I recommend that educators connect to other  
settings. Recommendations for practice included first customizing a social media rich  
environment. Second, I recommended that educators model reflective thinking  
assumptions using social media interactions followed by providing feedback via social  
media. Now, stressing that students connect their personal epistemologies to other  
settings supports curiosity and interactivity. In particular, I will discuss two settings: 1)  
other courses or subject areas, and 2) other social media channels.

First, I recommend educators connect reflective thinking via social media to other  
course contexts. This case study prioritized course content unique to consumer behavior  
within the marketing concentration. Data generated for this case study included evidence  
of students' perspectives from other business courses to reason about ill-structured issues

in consumer behavior. For example, Mandy referenced her principles of marketing instructor and ethics course during her interview by noting, “I think that's a valid statement because of what I learned with [name of former marketing instructor] and from my ethics and business class. I kind of got that pushing the products on consumers is unethical. So, I mean I kind of see it from both aspects but I don't really favor one or the other.” Archival data included Jessica’s connection to context from MARK 310 to her previous marketing courses by reference to a hashtag for the previous course, #m201, with this case study’s course hashtag, #m310. See Figure 24 for Jessica’s tweet.



Figure 24. Archival data. This tweet illustrates Jessica’s connection to MARK 310 and context from another course.

Encouraging students to consider evidence from other course settings upholds this case study’s implications. Student in MARK 310, like Mandy and Jessica, used context from other courses to practice reflective thinking assumptions. Evidence they referenced substantiated foundational knowledge, yet in the context of MARK 310, they attempted to expand knowledge through emphasis of acquisition of new knowledge (Piaget, 1952). Advocating other course content implies educators’ willingness to more broadly promote curiosity and interactivity. Both implications demonstrate educators’ openness to practice

reflective thinking about their own areas of expertise while demonstrating relationships 129

across other course contexts. Stearns and Crespy (1995) suggest course content merits less consideration than course sequencing, and improper sequencing of marketing curriculum has led to a “deficiency” (p. 24) in marketing students’ decision making abilities. Stearns and Crespy (1995) advocated the introduction of new course focused decision-making in marketing, yet this case study’s conclusions contribute practical implications educators may readily incorporate without a formal curriculum review. Social media interactions portrayed through this case study supported students’ use of Reflective Judgment Model assumptions within multiple contexts. Thus, students remained curious about previously completed marketing course and showed willingness to interactively reason about evidence relevant to other courses. With this implication, educators may choose to reference topics from students’ prerequisite classes, or instructors may preview relevant evidence they know as sequenced in subsequent courses to prompt greater evidentiary context. Keeping in mind implications of curiosity and interactivity, highlighting additional courses for Generation Y students immersed in social media environments promotes use of reflective thinking assumptions. Students decide on their concentrations because they conceivably view the selected field as a lens through which to understand contemporary problems (King & Kitchener, 1994). Constantly linking students to relevant evidence available in the broader context of their studies prompts students to practice reflective thinking by expressing evidence from their fields via social media. Accordingly, social media interaction supports settings that “cover the basics” (King & Kitchener, 1994, p. 236) while hinting at ill-structured problems that overlaps the content of subsequent courses.

Additionally, I encourage educators to practice this case study's implications in 130 the context of other social networking sites. I selected Twitter as the environment for MARK 310 students' interactions, yet the salient themes that emerged align with the availability of prominent features offered by other social networking sites. The marketing education literature showed educators' attempts to integrate social media networks including Facebook (Lampe, Ellison, & Steinfeld, 2008; Lampe, Wohn, Vitak, & Ellison, 2011; Steinfeld, Ellison, and Lampe, 2012), LinkedIn (McCorkle & McCorkle, 2012), YouTube (Payne, Campbell, Bal, & Piercy, 2011), wikis (Cole, 2009, Cronin, 2009; Lending, 2010), and Google+ (Erkollar & Oberer, 2013; Zahay et al., 2013). Separately, Twitter provided context distinguished as "a complex environment where students should engage with the material in a complex manner" (Rinaldo, et al., 2013 p. 17). In this case study, Twitter's complexity aligned with the potential held by ill-structured problems to elicit complex reasoning. When students used social media to express uncertainty and limited knowledge to integrate evidence, their ways of doing so – using questions and optimizing features – showed their patterns of reasoning. Students' practice of reasoning, therefore, may be adapted to the context other social media offers. I encourage educators interested in promoting cognitive development through use of Reflective Judgment Model in a social media environment to understand the variety of features within potential sites to appropriately model, offer feedback, and integrate evidence. As "trends in the Internet and online interaction in general is that these [forms] are increasingly blurring one into the other" (Kozinets, 2010, p. 87), this case study's implications for practice become increasingly supported by "hybridization" (Kozinets, 2010, p. 87) that creates utility for academic use of social media. Connecting this study's implications to

other social media contexts, therefore, is not a matter of which site to select but that, as 131 educators, we offer targeted settings that promote the advancement of reflective judgment through tools not yet available when King & Kitchener's (1994) model resonated in the literature.

### **Recommendations for Research Methods**

My case study about MARK 310 students' personal epistemologies and encounters with social media substantiated the theoretical propositions that guided the research design. Additionally, this descriptive case study also generated new hypotheses about "educational innovations" (Merriam, 2009, p. 51). By situating MARK 310 students in their real-life, naturalistic environment (Willis, 2007) an abundance of opportunities for exposure to ill-structured problems occurred in the presence of social media. Through this context, I sought to represent reasoning patterns in the context of social media represented by Generation Y business students. In particular, I did not anticipate the volume of data collected as archival data from social media. Therefore, use of a methodology designed to provide nuanced interpretations that computer mediated communication (Walther, 1996) can generate also aligns with the purpose, questions, and propositions that guided this case study. This case study showed that although MARK 310 as a course relied upon conventional characteristics including physical face-to-face communication that happened during regular, twice weekly meetings in a physical classroom, salient interactions shifted online in the presence of social media. Subsequently, opportunity exists to study Generation Y business students' development of reflective judgment by employing netnography, a methodology that centralizes online interactions.

Netnography can be defined as “a specialized form of ethnography adapted to the unique computer-mediated contingencies of today’s social worlds” (Kozinets, 2010, p. 1). A simpler definition espouses netnography as “ethnography on the Internet” (Kozinets, 2002, p. 2). Netnography developed as a methodological response to the prominence of emergent, online communities and cultures within our society. Computer mediated communications led to the emergence of such communities, sometimes referred to as “online communities” (Kozinets, 2002 p. 1). As a form of marketing research, netnography seeks to contextualize online interactions to understand both “symbol-systems and decision-making” (Kozinets, 2002, p. 2). By recognizing that consumer activity increasingly shifted online, netnography provides marketing researchers with a tool adopted for the cultural nuances available for deeper understanding.

Marketing researchers popularized netnography as a methodology and capitalized on its strengths. Nonetheless, academic literature remains limited to a few researchers and a few topics. In addition to Kozinets’s netnographies ranging from the TV show *XFiles* (Kozinets, 1997) to coffee consumption (Kozinets, 2002), other market-oriented netnographies appeared in the literature covering computer games (Nelson, Keum, & Yaros, 2004), wedding message boards (Nelson & Otnes, 2005), and music sharing (Giesler & Pohlmann, 2003). As seen by the range of topics investigated by netnography, one of its key strengths is its adaptability researchers’ interests. In the qualitative practice to use the researcher as the instrument (Merriam, 2009) netnography also emphasizes the researcher’s role to demonstrate naturalistic generalization (Willis, 2007). This naturalistic approach, however, now directs its “window into naturally occurring behaviors” (Kozinets, 2002, p. 3) through the investigator’s “continuing access to

informants in a particular online social situation” (Kozinets, 2002, p. 3). Therefore, netnography maintains distinctness compared to ethnography: while generating naturalistic insights, netnography simultaneously allows informants an unobtrusive experience with the researcher. Kozinets (2002) points to netnography’s combined strengths to be naturalistic and unobtrusive as “an unprecedentedly unique combination not found in any other marketing research method” (p. 3).

In spite of recognizing adaptability as netnography’s strength in the marketing literature, the marketing education literature has been slow to advance netnography in academic settings. Literature reviewed for this case study included studies categorized within marketing and marketing education. However, these studies showed limited usage of methodologies that stretched beyond self-reported survey data predominantly generated from student samples. Although this case study aimed to compliment the pre-existing literature of self-reported methodologies, it also aimed to deliver a heuristic (Merriam, 2009) through which readers take away an understanding of personal epistemologies via social media interactions as a phenomenon.

Review of marketing education literature, however, revealed a 2007 study in which authors used Kozinets’s (2002) netnography methodology as a proxy to substantiate netnography as a pedagogy tool. Authors adopted content analysis and observational methods to explore netnography’s “first application in an educational setting” (O’Reilly et al., 2007, p. 72). Designed to discover “netno-advantages” (O’Reilly et al., 2007, p. 72) for educators’ consideration of netnography’s strengths as a pedagogical choice, the authors advocated an adaptation to more fully integrate

advocated "education netnomethodology" to include five steps, each matched to Kozinets (2002)

Kozinets's (2002) netnography and O'Reilly et al.'s (2007) education netnomethodology share four of five major steps within the respective methodologies. Although steps two through five – data collection and analysis, providing trustworthy interpretation, research ethics, and member checks – sequentially describe alignment between netnography and education netnomethodology, the first step in both designs includes the major difference between netnographies and education netnomethodology. This divergence between the two designs occurs in the way in which researchers gain access to participants. Netnography commences when the investigator obtains "cultural entrée" (O'Reilly et al., 2007, p. 73). Kozinets (2002) recommends that entrée into the culture occur as a two-step process. Like all other research methodologies, netnography should only proceed with appropriately designed research questions, yet in netnography, researchers need to also connect the research question(s) to the availability of online forums appropriate to address the questions. Entrée next requires researchers to discover as much information about the appropriate online forums selected to align with the research questions. Given the rapid developments of new computer mediated communications and upgrades made to preexisting technologies, researchers' effective entrée also requires familiarity with the types of online communities available in an environment prone to rapid changes.

However, during the equivalent of netnography's entrée stage, educational netnomethodology diverges. Educators need not discover an appropriate online forum for



entrée as (1) the student community does not pre-exist but is bounded to the timing of 135  
the academic calendar and (2) the educator may already claim membership in the course  
community. This fundamental difference guided O'Reilly et al. (2007) to draw parallels  
between what they call "community formation" to entrée in netnography. When  
educators effectively formed community, activities including discussions of guidelines,  
integrating a "unique naming convention" (O'Reilly et. al, 2007, p. 74) for the protection  
of students' identities, and other general procedures anticipated in higher education  
courses occurred.

Furthermore, overlap exists between education netnomethodology and this case  
study's recommendations for practice. Similar to this case study's salient findings,  
educational netnomethodology classified the content of messages posted to the online  
classroom communities (O'Reilly et. al, 2007). As Kozinets's (2002) informational  
posting category addressed "consumptive interest" (O'Reilly et al., 2007, p. 74),  
education netnomethodology defined online messages as inclusive of administrative,  
feedback, and course content related. Of particular interest to this case study's  
recommendations are course content related and feedback categories. In education  
netnomethodology, content related posts included messages that questioned relevant  
course materials, and feedback posts provided comments and reactions generated by  
students and targeted to the faculty. Here, content related posts resemble this study's first  
salient theme that students used social media to express uncertainty and limited  
knowledge vis-à-vis questioning. However, content related posts, as defined by O'Reilly  
et al. (2007), promoted well-structured problems readily solved within the online  
community. Emphasis instead framed knowledge sharing characterized as "insightful

about what was required in the correct answer” (O’Reilly, 2007, p. 80). Additionally, 136  
feedback posts indicated students’ observations about possible changes faculty might  
make to benefit the online community. I recommend feedback aimed to address students’  
missed opportunities in reasoning about ill-structured problems. With minor adoptions to  
address features of King and Kitchener’s (1994) Reflective Judgment model,  
netnography – more precisely, education netnomethodology – is an appropriate  
methodology through which to understand the phenomenon of reflective thinking via  
social media interactions.

In the limited literature about employing netnographic techniques in our higher  
education classrooms, O’Reilly et al. (2007) provided compelling insights for increased  
adoption as we seek continuous improvement within our pedagogical choices. In addition  
to again emphasizing netnographic qualities of minimal obtrusion and through  
naturalistic inquiry, the authors conclude that education netnomethodology primarily  
allows faculty to understand students’ needs. Nonetheless, the study showed limitations,  
calling into question its trustworthiness. While the authors highlighted increased student  
morale, students’ cognitive development goes unmentioned. Furthermore, the online  
community that served as the unit of analysis fit a “megaclass” format. Here, nearly 1500  
students enrolled in an introductory marketing course for two consecutive fall semesters.  
The flexibility of netnography has explicit benefits for adoption by course sections that  
include more than 700 students. Nonetheless, the trustworthiness of this method to  
generalize in other course formats points to a potential opportunity to adopt education  
netnomethodology to smaller class sizes, like MARK 310, which enrolled fifty-one  
students and was considered, by institutional standards, a large section size.

netnomethodology to online classroom communities using social networking sites. Data generated by O'Reilly et al. (2007) depended on a combination of computer-mediated communication. Students accessed standard university email and course management systems, like Blackboard, to access and contribute to online discussion boards with various forums. While these tools provide a breadth of resources that are widely available across institutions, the complexity of the environment lacks connection to additional streams of evidence social networking sites can provide. Those interested in netnography are encouraged to view the entire community as an "ecosystem" (Pettit, 2010, p. 241). In this ecosystem, each member plays a role that is real. It is the job of the researcher to determine how the realness of the members' roles perform within the community. In O'Reilly et al.'s (2007) education netnomethodology, the tools in which the community interacted did not represent the authentic online interactions of the community. Specifically, Blackboard's authenticity occurs in an academic setting, and while some firms and organizations use similar tools in their private, intranet infrastructures, Generation Y online communities encompass many other types of online social experiences. Kozinets (2010) recommends that, most importantly to the selection of the online site, the researcher must "experience online social interaction in the ways your participants are experiencing it (p. ). Although acceptance of social networking sites has increased since O'Reilly et al.'s (2007) data collection, researchers looking to replicate education netnomethodology need to consider accessibility. When the students completed the semester, that real community – should it desire to persist independent of course enrollment – needed to migrate to other forms of communication. Per this case study's

recommendation for practice, connecting the reasoning students convey online should 138  
be connected to other settings, which includes other social media networking sites.

Institutions are tasked to promote lifelong learning through adoption of online classroom tools in spite of debate about what technology to adopt (Murphy, et al. 2011).

Accordingly, social networking sites, such as Twitter's interaction in MARK 310, allows for education netnomethodology within an environment more authentic to Generation Y students' expressions of curiosity and interactivity.

### **Recommendation for Research Topic: Ignatian Pedagogy Paradigm**

This case study contributed to increasing interest in the pedagogical connection to social media in the marketing education literature. Yet, its findings, conclusions, implications overlap with growing institutional interest in Ignatian pedagogy as a scholarly practice. Jesuit educators advocated for reflective practice centuries before technology's ubiquitous presence in higher education, yet the modern Web 2.0 paradigms (Granitz & Koernig, 2011) challenge reflective practice amongst Generation Y students due to fundamentally inadequate knowledge about the process of reflection (Mountin & Nowacek, 2012). Educators at Loyola University Chicago and other Jesuit institutions may adopt Ignatian Pedagogy Paradigm, or IPP, (Duminuco, 2000) to promote "deep learning" (Mountin & Nowacek, 2012, p. 135) across context, experience, reflection, action, and evaluation. Refer to Figure 25. However, reflective practice is often a challenge to integrate into our classrooms. Noted by Hidding, Scheidenhelm, and Milligan (2014), "we may not provide a means for students to concretize and to interpret their learning" (p. 2). Here, interest in reflection aligns with marketing education literature. Reflection associated with "self-analysis and self-questioning" provides a

catalyst for social change in the context of organizational development (Peltier, Hay, & 139 Drago, 2005). Subsequently, the implications for this case study suggest commonality between IPP and Reflective Judgment Model (King & Kitchener, 1994) that lend direction to future research. What is unknown is how promoting personal epistemology development through social media interaction may enhance IPP's emphasis on reflection when both social media and IPP are integrated into pedagogies.

Figure 25 outlines five key principles that construct the Ignatian Pedagogy Paradigm. This case study's findings and implications suggest additional research to substantiate how Generation Y business students at Jesuit institutions may advance personal epistemologies when IPP is practiced in a social media environment. Similarities between each of the five IPP principles and this case study's findings and implications encourage continued research. First, context as an IPP principle identifies all environmental conditions instrumental to how students learn. This case study's context prioritized students' exposure to ill-structured problems, and in particular, this exposure happened with social media interactions. Second, experience necessitates students' "lived understanding" (Chubbuck, 2007, p. 244). Experience occurred in MARK 310 when students used social to represent their ways of knowing; they experienced social media in real-time as a way to express uncertainty and limited knowledge and as a way to integrate evidence. Next, reflection within IPP calls students to address contingencies; this principle also supports "teachers' open-ended questions" (Chubbuck, 2007, p. 243). Upon their experiences with social media, students used a range of Reflective Judgment (King & Kitchener, 1994) assumptions to manifest the social media experience, including students' use of social media as a platform for inquiry.

However, given this case study's limited evidence of students' reflective thinking assumptions, connections to action and evaluation, the final two principles in Figure 25, were under-represented. Although MARK 310 students' personal epistemologies lacked development to act and evaluate, these principles, combined with Generation Y business students' capacities for advanced cognitive development via social media, hold potential as important next steps for additional data collection and analysis. Moreover, the goal of IPP ultimately resides in transformation, or a conversion that happens as the learner engages with the continuous cycle of principles. Although this study's implications to foster curiosity and interactivity represent spurts (Fisher, 1980) MARK 310 students manifested in relatively short timeframes, designing the focus of future research to incorporate sustained optimal thinking may allow for deeper understanding. For example, collecting data about context and experience with ill-structured problems and social media interactions aligns with subjective practices, including journaling (Chubbuck, 2007), an exercise representative of the Web 2.0 paradigm to "compose reflective journals or blogs" (Granitz & Koernig, 2011).

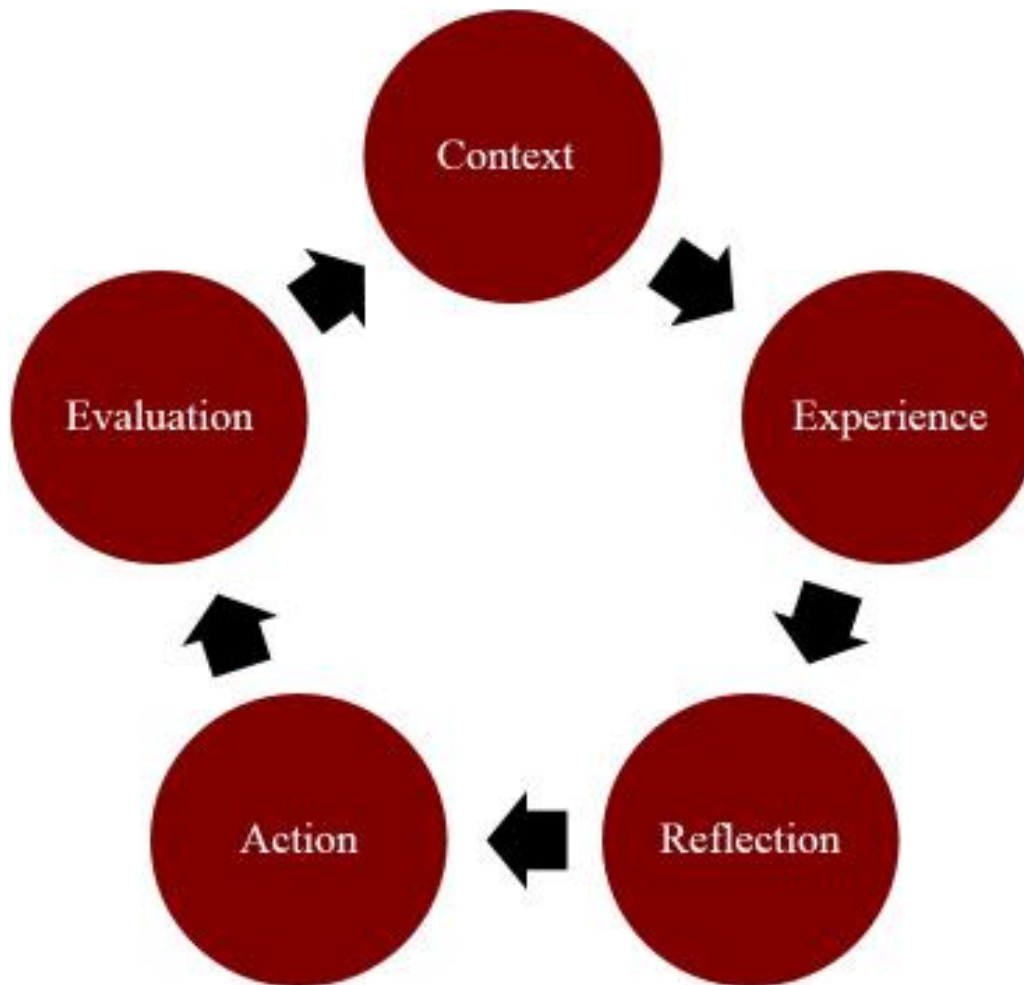


Figure 25. Ignatian Pedagogy Paradigm (IPP). This figure illustrates the relationship amongst the five conditions of IPP.

### **Closing Remarks**

The ongoing opportunities facing higher education's adoption of online tools, such as social media, represent a range of emerging decisions for educators. Yet, the responsibility of educators to prepare our students to discern complex issues continues. The online environment, characterized by velocity of content creation and perpetual noise, motivates possible adjustments to our own ways of knowing. In doing so, we may rely on our own personal epistemologies to make defensible judgments about how to

effectively address students' personal epistemologies in this complex, online environment.



## APPENDIX A

### DESCRIPTION OF MARK 310 STUDENTS' FALL 2013 SEMESTER PROJECT

**Consumer Insights Roundtables (CIR):**  
***AdAge* American Consumer Project & Paradox of Choice (PoC)**

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As a small group, you will lead a Consumer Insights Roundtable to achieve the following outcomes:

1. To discuss in-depth consumer behavior theory(ies) from a marketer's perspective
2. To reflect upon the meaning of current consumer behavior examples in practice
3. To integrate managerial applications of consumer behavior with ethical implications
4. To question the impact of current and emerging trends on salient segments *unlike* Generation Y
5. To leverage social media for academic and professional communication

Your team will be assigned a chapter from Paradox of Choice (PoC) Part III Why We Suffer and a consumer profile from the *AdAge* American Consumer Project. The chapter will be critically analyzed for consumer insights using the consumer profile as the focus.

*AdAge* profiles are paired with PoC chapters as follows:

- 1. Team Basha:** PoC Ch 5 Choice and Happiness + Textbook Ch 2 Perception
- 2. Team Alfredo:** PoC Ch 6 Missed Opportunities + Textbook Ch 4 Motivation and Values
- 3. Team Jay:** PoC Ch 7 "If Only..." + Textbook Ch 7 & 8 Attitude & Persuasion
- 4. Team Andrew:** PoC Ch 8 Why Decisions Disappoint + Textbook Ch 9 Individual Decision Making & Ch 10 Group Decision Making
- 5. Team Chris:** PoC Ch 9 Why Everything Suffers from Comparison + Textbook Ch 3 Learning & Ch 15 Culture
- 6. Team Rosemary:** PoC 10 Whose Fault Is It? + Textbook Ch 6 Personality and Lifestyle
- 7. Team Jennifer:** PoC Ch 4 When Only the Best Will Do? + Textbook Ch 9 Individual Decision Making & Ch 10 Group Decision Making

*AdAge* Consumer Profiles are available as a pdf via Sakai and through the hyperlink pasted below:

<http://adage.com/special-reports/americanconsumerproject/171>

The Roundtable discussion will respond to the following:

1. How is the *AdAge* consumer represented in PoC? What are the similarities between the consumer and PoC? *Cite specific content* in the assigned PoC chapter that is demonstrated by the behavior of the *AdAge* consumer. Apply the MARK310 text chapter concepts too.
2. How is the *AdAge* consumer different from PoC? What studies, experiments, or anecdotes are counterarguments to the behavior of the consumer profile? *Cite*

*specific content* in the assigned PoC chapter that is inconsistent with the<sup>145</sup> behavior of the *AdAge* consumer. Apply the MARK310 text chapter concepts too.

3. *Propose* how the *AdAge* consumer might *consume* given the PoC chapter hypotheses. What products (goods, services, ideas, and/or experiences) should be marketed to fit the *AdAge* consumer? What is the meaning of consumption (from Textbook Ch 1) for the consumer?
4. How might the individual *AdAge* consumer represent *an emerging consumer segment*? Consider the demographic and geographic segmentation *AdAge* initially used, and extend this to psychographic segmentation.
5. What evidence from PoC Part I, II or Part IV is also relevant to the *AdAge* consumer? What evidence from Textbook chapters other than your team's assigned chapter(s) is also relevant?

Move beyond what is discussed in class (that is, don't re-introduce or define concepts). Provide in-depth analysis that applies course content without redefining or summarizing. To accomplish this, your team must integrate *at least* the following required citations to support the aforementioned objectives:

1. *one* reference or citation to a PoC Chapter Notes source (e.g. Chapter 5 refers to back-of-book Chapter 5 Notes)
2. *one* additional headline from *AdAge* (@AdAge): <http://adage.com/>
3. *one* headline from Mashable (@Mashable): <http://mashable.com/>
4. *one* title from *Journal of Marketing* or *Journal of Consumer Research* (@JCRNEWS or search by EJournal via libraries.luc.edu)
5. *one* trends presentation from [www.slideshare.net](http://www.slideshare.net) (@slideshare)
6. *one* infographic: <http://www.fastcompany.com/infographics> is an example (@FastCompany)
7. *one* poll: consider <http://www.pewresearch.org/> (@pewresearch) or [www.gallup.com](http://www.gallup.com) (@gallupoll)
8. *one Trendwatching* (@trendwatching) reference: ideas for possible emerging consumer segments can be found [www.trendwatching.com](http://www.trendwatching.com):
9. Esri Tapestry (@esri): see [http://www.esri.com/data/esri\\_data/tapestry](http://www.esri.com/data/esri_data/tapestry) for emerging consumer segments

Teams will share analysis of questions 1-5 above for *approximately* 40 minutes. Teams will also prepare **open-ended** questions to engage classmates. Through prepared and professional Roundtable leadership, Q&A will approximately run, but is not limited to, 20 minutes.

Classmates are expected to read the PoC chapter and *AdAge* profile. *Show preparation by bringing materials (PoC book and AdAge profile) to class during scheduled Roundtables days.*

Team's Roundtable materials will be shared via an organized Wix site. See the Wix tutorial PowerPoint file posted to Sakai for step-by-step instructions about creating and presenting a team Wix.

The goal of the team Wix is to communicate the *consumer insights* assembled about the *AdAge* consumer using the PoC chapter and required resources. The Wix site should be designed as a personal webpage of the *AdAge* consumer. In other words, if the *AdAge* consumer were to construct a personal website, would your team Wix visually represent the consumer?<sup>146</sup>

To further represent *AdAge* consumer profiles via online media, each team will communicate a #hashtag to the class. The #hashtag is to be appropriate to the team's consumer, and this #hashtag will connect and facilitate an online discussion via Twitter during Roundtables. When using Twitter, each character counts, so the length of the #hashtag is important. Consider, for example, using #TeamBasha, #TeamAlfredo, #TeamJay, etc, but the team has the final decision on which tag best represents its content. *No matter what #hashtag the team decides to use, #m310 (for MARK310) will accompany content posted to Twitter.*

At least one member of the team is required to post the Wix link to Twitter using the team's #hashtag and #m310. The link should be posted no later than the start of class for the team's scheduled Roundtable. **The open-ended questions prepared by the team will also be tweeted the day of the scheduled Roundtable.** Each question should fit Twitter's 140 character requirement (including #m310).

Consumer Insights Roundtables are scheduled per the Course Outline (posted with the Syllabus via Sakai).

**AdAge/PoC Roundtable Assessment (25% of total MARK310 grade)**

<u>Organization &amp; Creativity (worth 30 points total)</u>	<u>Max</u>
Overall Organization and Timing of the Presentation	20
Overall Creativity (use of Wix.com or other online resources)	<u>10</u>
	30
<u>Presentation Style (worth 20 points total)</u>	
Overall Professional Demeanor and Enthusiasm of Presenters	10
Knowledge and Professionalism During Q&A/Generated Class Discussion	<u>10</u>
	20
<u>Content Component (worth 50 points total)</u>	
Offered Support of Ideas through Class Concepts and Outside Research	20
Offered Implications for Consumers, Marketers and/or Society	10
Level of Overall Insight Offered	<u>20</u>
	50

Remember, per the Syllabus: *A group project is a complete entity for which each student with his or her name on the cover page is fully responsible for all parts. That is, each student is responsible for all parts of the project when a group project is submitted, not just the specific piece that may have been the student's chief (not sole) responsibility.*

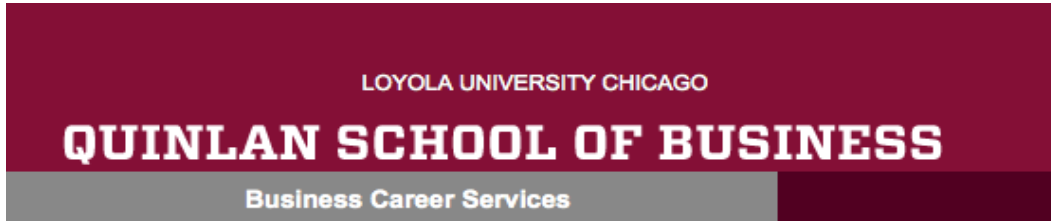
APPENDIX B  
COURSE SCHEDULE/OUTLINE

Week	Date	Topic/Assignment
1	Tuesday, August 27	Introduction to Consumer Behavior & Syllabus
	Thursday, August 29	Chapter 1: What is CB? (Consumers Rule) Bring Wordle & Consumption Environment pictures Introduce PoC/AdAge Consumer Insights Roundtables
2	Tuesday, September 3	Chapter 2: Perception
	Thursday, September 5	Chapter 2: (continued) & Chapter 3: Learning and Memory
3	Tuesday, September 10	Chapter 3: (continued) & Chapter 4: Motivation and Values
	Thursday, September 12	Chapter 4: (continued) & Chapter 6: Personality and Lifestyle
4	Tuesday, September 17	Chapter 6: (continued) & <i>The Greatest Movie Ever Sold</i>
	Thursday, September 19	<i>The Greatest Movie Ever Sold</i> (continued)
5	Tuesday, September 24	Chapter 7 & 8: Attitudes and Persuasion
	Thursday, September 26	Chapter 7 & 8: (continued) & <i>The Persuaders</i>
6	Tuesday, October 1	Midterm Assessment Review
	Thursday, October 3	Midterm Assessment
7	Tuesday, October 8	<b>NO CLASS: FALL BREAK</b>
	Thursday, October 10	Chapter 9: Individual Decision Making
8	Tuesday, October 15	Chapter 9: (continued) & Chapter 10: Group Influence
	Thursday, October 17	Chapter 10: (continued) & <i>Project Re: brief</i>
9	Tuesday, October 21	<i>Project Re: brief</i> (continued) & Chapter 15 Cultural Influences
	Thursday, October 24	<b>Field Trip</b>
10	Tuesday, October 29	Chapter 15: (continued)
	Thursday, October 31	PoC Roundtables Work Day (as needed)
11	Tuesday, November 5	PoC Chapter 5/AdAge Basha
	Thursday, November 7	PoC Chapter 6/AdAge Alfredo
12	Tuesday, November 12	PoC Chapter 7/AdAge Jay
	Thursday, November 14	PoC Chapter 8/AdAge Andrew
13	Tuesday, November 19	PoC Chapter 9/AdAge Chris
	Thursday, November 21	PoC Chapter 10/AdAge Rosemary
14	Tuesday, November 26	PoC Wrap-up/AdAge Jennifer
	Thursday, November 28	<b>NO CLASS: THANKSGIVING</b>
15	Tuesday, December 3	Chapter 5: The Self
	Thursday, December 5	Final Assessment Review
FINAL	Thursday, December 12	1pm-3pm

Additional Notes, page 2:

1. Class may occasionally deviate from the course outline posted. The instructor reserves the right to make changes as needed to the schedule and will communicate in as timely a manner as possible.

2. Fall 2013 Business Career Fair: details below.



## Fall 2013 Business Career Fair

*for Quinlan School of Business students and alumni*

**Tuesday, September 24 • 3–6 p.m.**

DoubleTree Hotel Mag Mile  
300 E Ohio • Chicago, IL 60611 • [Map](#)

**Registration Deadline:** September 13, 2013

3. Additional University calendar dates can be found  
[http://www.luc.edu/academics/schedules/fall/academic\\_calendar.shtml](http://www.luc.edu/academics/schedules/fall/academic_calendar.shtml)

## APPENDIX C

### CONSENT TO PARTICIPATE IN RESEARCH FORM



**Project Title:** *Social Media and Generation Y's Reflective Thinking in Consumer Behavior: A Case Study*

**Researcher(s):** *Stacy Neier*

**Faculty Sponsor:** *Terri Pigott*

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**Introduction:**

You are being asked to take part in a research study being conducted by Stacy Neier for a dissertation under the supervision of Terri Pigott, Ph.D. in the Department of Research Methodology at Loyola University of Chicago.

You are being asked to participate because you are currently enrolled in MARK 310, Section 102 during Fall 2013. The number of participants in the study is equal to the number of students enrolled in the course. Therefore, approximately fifty students are asked to participate. Only students over the age of 18 are asked to participate.

Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

**Purpose:**

The purpose of this study is to describe patterns of reflective thinking observed by students who interact with social media during enrollment in MARK 310, Section 102.

**Procedures:**

If you agree to be in the study, you will be asked to:

- Permit Consumer Insights Roundtables (CIR) project materials to be analyzed at the conclusion of Fall Semester 2013. CIR materials include any materials completed for or about the CIR project. This content includes material shared during in-class CIR presentations, content posted online (e.g. via social media) about CIR, and project materials submitted when CIR projects conclude. All aforementioned project materials will be reviewed after MARK310 grades are officially posted to LOCUS. The analyses of these materials have no impact or influence on individual course grades in MARK310.
- Schedule an interview in Spring Semester 2014. The interview covers approximately 12 open-ended questions and will last approximately 60 minutes. Further, the interview will be scheduled at a mutually agreeable time and location for the interviewer and student. Interviews may be scheduled at either Lake Shore Campus or Water Tower Campus at Loyola University Chicago. Interviews may be conducted a trained graduate research assistant. Interviews will be scheduled using luc.edu email.

**Risks/Benefits:**

There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life.

There are no direct benefits to you from participation. While you may not benefit personally, you will aid in developing practices and theories about the potential for social media to develop thinking skills in advanced 300-level marketing courses. This could potentially benefit future students in the learning process you are now experiencing as a student enrolled in this course.

**Confidentiality:**

- The data collected from this study will be completely confidential. All students who consent to participate in one or more of the data collection activities will be assigned a pseudonym. Documents collected will be locked in Maguire Hall, Room 454.
- Interviews scheduled in Spring Semester 2014 will be audiotaped using a small recording device. Transcripts will be generated from the tapes. The typed transcripts will be saved on the PC desktop in Maguire Hall, Room 454. The taped recording will be kept in a locked drawer in a locked office in Maguire Hall, Room 454. Maguire Room 454 is accessible only by Stacy Neier. All transcripts will refer to participants by pseudonyms. Upon the completion of the study, the audio files will be destroyed. Transcripts will be kept for one year after the completion of the project and then destroyed by a shredder available in Maguire Hall Room 462.

**Voluntary Participation:**

Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to withdraw from participation at any time without penalty. Your participation will have no affect on your relationship with Stacy Neier, your MARK 310\_102 instructor.

**Contacts and Questions:**

If you have questions about this research study, please feel free to Stacy Neier at (312) 915-6581 or [sneier@luc.edu](mailto:sneier@luc.edu) or the faculty sponsor, Terri Pigott, at (312) 915-6245 or [tpigott@luc.edu](mailto:tpigott@luc.edu).

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

**Statement of Consent:**

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Your signature below indicates that you have read the information provided above, have had an opportunity to ask questions, and agree to participate in this research study. You will be given a copy of this form to keep for your records.

_____	_____
<b>Participant's Signature</b>	<b>Date</b>
_____	_____
<b>Researcher's Signature</b>	<b>Date</b>

APPENDIX D

INTERVIEW RECRUITMENT EMAIL

Dear (Insert Name of Potential Interview Informant):

I am writing to request your participation in an in-depth interview. The interview is a part of a continuing study about social media's relationship with students' thinking patterns. During Fall Semester 2013, you consented to participate in this study during MARK310\_102 Consumer Behavior. Would you be willing to participate in an interview this semester? The interview, data collected, and any discussions would be kept confidential. Your name and background will never be revealed if anything were to be presented or published.

The interview would last approximately 60 minutes and will be taped. The tapes are for transcription purposes only and will be destroyed at the conclusion of the study. The interview will be facilitated by a trained graduate assistant who will meet your scheduling needs for both time and campus location. Please contact me at (312) 915- 6581 or [sneier@luc.edu](mailto:sneier@luc.edu) if you are interested in participating or if you have any questions. We can begin to schedule a time and place that best fits your schedule.

Thank you for your consideration.

Sincerely,

Stacy Neier  
Department of Marketing  
Quinlan School of Business  
Loyola University Chicago  
(312) 915-6581  
[sneier@luc.edu](mailto:sneier@luc.edu)

APPENDIX E  
INTERVIEW PROTOCOL

During this hour we will be talking about two issues that are of general concern and about which most people are at least vaguely familiar. I am not concerned about how much information you have about either issue, but how you think you learn from the issues. In order to standardize what we talk about, I will be asking the same series of questions for both issues; I am not repeating the questions because I am looking for a particular answer. For each issue, I will read the issue out loud. After I finish reading the statement, I'll give you a minute or so to think about the issue and then we will begin to talk about it.

Are there any questions before we begin?

**First issue:**

Some consumers believe that marketing represents a manipulation of consumers' non-existent needs; marketers push products on consumers. Other consumers believe marketers support consumers needs by providing products that address needs consumers didn't realize existed; marketers solve problems in every day life for every day consumers.

<i><b>Probe Question</b></i>	<i><b>Purpose</b></i>
<b>What do you think about these statements?</b>	To allow the participant to share an initial reaction to the problem presented. Most respondents state the point of view is closer to their own (that the Egyptians built the pyramids, that news reporting is biased, and so forth)
<b>How did you come to hold that point of view?</b>	To find out how the respondents arrived at the point of view, and whether and how it has evolved from other positions on the issue.
<b>On what do you base that point of view?</b>	To find out about the basis of the respondent's point of view, such as a personal evaluation of the data, consistency with an expert's point of view, or a specific experience. This provides information about the respondents' concept of justification.
<b>Can you ever know for sure that your position on this issue is correct? How or why not?</b>	To find out about the respondent's assumptions concerning the certainty of knowledge (such as whether issues like this can be known absolutely, what the respondent would do in order to increase the certainty, or why that would not be possible).

**When two people differ about matters such as this, is it the case that one opinion is right and one is wrong? If yes, what do you mean by “right”? If no, can you say that one opinion is in some way better than the other? What do you mean by “better”?**

**How is it possible that people have such different points of view about this subject?**

**How is it possible that experts in the field disagree about this subject?**

To find out how the respondent assesses the adequacy of alternative interpretations; to see if the respondent holds a dichotomous either/or view of the issue (characteristic of the early stages); to allow the participant to give criteria by which she or he evaluates the adequacy of arguments (information that helps differentiate high- from middle-level stage responses).

To elicit comments about the respondent’s understanding of differences in perspectives and opinions (what they are based on and why there is such diversity of opinion about the issue).

To elicit comments about the respondent’s understanding of how he or she uses the point of view of an expert or authority in making decisions about controversial issues (such as whether experts’ views are weighted more heavily than others’ views, and why or why not).

**Now, you’ll be able to select an issue to discuss.**

The tablet/laptop provided has a web browser opened to Twitter.com. Select one of the following resources from the Fall 2013 MARK 310 Consumer Behavior Consumer Insights Roundtable (CIR) Project. Visit the Twitter page per the handle listed in the table.

<b>Resource</b>	<b>Twitter handle via www.twitter.com</b>
<i>AdAge</i> <a href="http://adage.com/">http://adage.com/</a>	@AdAge
<i>Mashable</i> <a href="http://mashable.com/">http://mashable.com/</a>	@Mashable
<i>Journal of Consumer Research</i>	@JCRNEWS
<i>Slideshare</i> <a href="http://www.slideshare.net">www.slideshare.net</a>	@slideshare
<i>Fast Company</i> infographics <a href="http://www.fastcompany.com/infographics">http://www.fastcompany.com/infographics</a>	@FastCompany
<i>Pew Research</i> or <i>Gallup</i> polls	@pewresearch or @galluppoll
<i>Trendwatching</i> <a href="http://www.trendwatching.com">www.trendwatching.com</a>	@trendwatching
<i>Esri Tapestry</i> <a href="http://www.esri.com/data/esri_data/tapestry">http://www.esri.com/data/esri_data/tapestry</a>	@esri



Scroll through the Twitter feed of the resource selected, and choose one tweet that cannot be described with a high degree of certainty. Should you choose a tweet that includes a link, click the link, and read the link's content.

(Provide example as needed should informant need clarification.)

Example screen shot:



### ***Probe Question***

**What do you think about these statements included in the tweet you selected?**

**How did you come to hold that point of view?**

**On what do you base that point of view?**

### ***Purpose***

To allow the participant to share an initial reaction to the problem presented. Most respondents state the point of view is closer to their own (that the Egyptians built the pyramids, that news reporting is biased, and so forth)

To find out how the respondents arrived at the point of view, and whether and how it has evolved from other positions on the issue.

To find out about the basis of the respondent's point of view, such as a personal evaluation of the data, consistency with an expert's point of

**Can you ever know for sure that your position on this issue is correct? How or why not?**

view, or a specific experience. This provides information about the respondents' concept of justification. To find out about the respondent's assumptions concerning the certainty of knowledge (such as whether issues like this can be known absolutely, what the respondent would do in order to increase the certainty, or why that would not be possible).

**When two people differ about matters such as this, is it the case that one opinion is right and one is wrong? If yes, what do you mean by "right"? If no, can you say that one opinion is in some way better than the other? What do you mean by "better"?**

To find out how the respondent assesses the adequacy of alternative interpretations; to see if the respondent holds a dichotomous either/or view of the issue (characteristic of the early stages); to allow the participant to give criteria by which she or he evaluates the adequacy of arguments (information that helps differentiate high- from middle-level stage responses).

**How is it possible that people have such different points of view about this subject?**

To elicit comments about the respondent's understanding of differences in perspectives and opinions (what they are based on and why there is such diversity of opinion about the issue).

**How is it possible that experts in the field disagree about this subject?**

To elicit comments about the respondent's understanding of how he or she uses the point of view of an expert or authority in making decisions about controversial issues (such as whether experts' views are weighted more heavily than others' views, and why or why not).

**Is there anything else you would like to share about your experience in MARK 310 during Fall 2013?**

Thanks for your time!

APPENDIX F  
CODING GUIDE

<b>Assumption</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Stage 2</b>	Knowledge is certain, but some people do not have access to it. (2,1)	Authorities such as scientists, teachers, and religious leaders know the truth. (2,2)	When the truth is uncertain accept the view of an authority. (2,3)	Evidence is not a criterion for establishing truthfulness. (2,4)
<b>Stage 3</b>	Knowledge is absolutely certain in some areas and temporarily uncertain in other areas. (3,1)	Beliefs are justified according to the word of an authority in areas of certainty and according to what “feels right” in areas of uncertainty. (3,2)	Evidence can neither be evaluated nor used to reason for conclusions. (3,3)	Opinions and beliefs cannot be distinguished from factual evidence. (3,4)
<b>Stage 4</b>	Knowledge is uncertain because limitations of the knower. (4,1)	Beliefs are justified by idiosyncratic uses of evidence and opinion. (4,2)	Differences in points of view exist because of people’s upbringing or because they deliberately distort information. (4,3)	Evidence is used in support of a point of view along with unsubstantiated opinion. (4,4)
<b>Stage 5</b>	Interpretation is inherent in all understanding; therefore, no knowledge is certain. (5,1)	Beliefs may be justified only within a given context or from a given perspective. (5,2)	Evidence can be evaluated quantitatively: within a perspective, some evidence is stronger or more relevant than other evidence. (5,3)	
<b>Stage 6</b>	Knowledge is uncertain and must be understood in relationship to context and evidence. (6,1)	Some points of view may be tentatively judged as better than others. (6,2)	Evidence on different points of view can be compared and evaluated as a basis for justification. (6,3)	

APPENDIX G

MY SOCIAL MEDIA INTERACTIONS WITH MARK 310 PRIOR TO CIR

PROJECTS



**sneier** @sneier · Sep 3

#m310 September 2013 Trend Briefing, perfect timing for today's project intro: [trendwatching.com/trends/demandi...](http://trendwatching.com/trends/demandi...) via @trendwatching

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**sneier** @sneier · Sep 5

#m310 stingrays & #backtoblue, ch 2 perception continues today: [vimeo.com/63862569](http://vimeo.com/63862569)  
[bloomberg.com/video/gap-gets...](http://bloomberg.com/video/gap-gets...)

12:43 PM - 5 Sep 2013 · Details

[Collapse](#)

↩ Reply ★ Favorite ... More



**sneier** @sneier · Sep 10

#m310 how does learning & memory (chapter 3) apply to @googleglass: [youtube.com/user/googlegla...](http://youtube.com/user/googlegla...)

11:44 AM - 10 Sep 2013 · Details

[Collapse](#)

↩ Reply ★ Favorite ... More



**sneier** @sneier · Sep 10

thanks for the #m310 link, [redacted] take a look at this too: [fastcompany.com/3016720/fast-f...](http://fastcompany.com/3016720/fast-f...) not sure i'll be able to bring that to class ;)

 Fast Company



**KFC Starts Selling Deep-Fried Soup**

By Anya Kamenetz @anya1anya

Mmm-hmm, that ol' southern-fried soup.

[View on fastcompany.com](http://View on fastcompany.com)

 View summary

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[redacted] Sep 9

@sneier What does KFC smell like? | [adland.tv](http://adland.tv) [po.st/a8lxEO](http://po.st/a8lxEO) via @adland This reminded me of our last class lecture #m310

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sneier @sneier · Sep 12

#m310 let's talk [evolutionfresh.com/en-us/](http://evolutionfresh.com/en-us/) & [youtube.com/watch?v=-EVwCP...](http://youtube.com/watch?v=-EVwCP...)  
today. juice and socks: quite the combo.

12:24 PM - 12 Sep 2013 · Details

[Collapse](#)

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Favorited by [\[redacted\]](#) other

sneier @sneier · Sep 17

#m310 Maslow in our digital world ... {thank [\[redacted\]](#) #m310allstar}  
[pic.twitter.com/uYmNdXVWPt](http://pic.twitter.com/uYmNdXVWPt)



RETWEETS

3

FAVORITES

2



12:41 PM - 17 Sep 2013 · Details

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sneier @sneier · Sep 17

#m310 Evolution, no longer masked by @Starbucks! State and Pearson store! quite the discovery! [pic.twitter.com/v2BjHMiiXQ](https://pic.twitter.com/v2BjHMiiXQ)



2:44 PM - 17 Sep 2013 · Details

Flag media

[Collapse](#)

Reply Favorite More



Favorited by 

**sneier** @sneier · Sep 19

#m310 brand personality via @DavidAaker prophet.com/blog/aakeronbr... ... +  
 @MorganSpurlock's take via imdb.com/title/tt174372...

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FAVORITE  
 1 

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12:29 PM - 19 Sep 2013 · Details

[Collapse](#) [↩ Reply](#) [★ Favorite](#) [\\*\\*\\* More](#)

 **sneier** @sneier · Sep 24

#m310 more than "just a guy in a robe and sneakers" ... Come-to-Jesus Moment for Brooklyn, Queens Hipsters [on.wsj.com/15ZOxoN](http://on.wsj.com/15ZOxoN) via @WSJ

 Wall Street Journal



### Come-to-Jesus Moment for Hipsters

No one recalls exactly who came up with the advertisement, but the team at Ruckus Marketing does know that, at some point, they started referring to it as the "Hipster Jesus ad."

[View on wsj.com](http://View on wsj.com)

 Expand

[↩ Reply](#) [★ Favorite](#) [\\*\\*\\* More](#)



**sneier** @sneier · Sep 24

#m310 no pun intended with "culture" ... Greek Yogurt's Culture Wars  
on.wsj.com/1ebbDet via @wsj



### Greek Yogurt's Culture Wars

Culture wars are being waged at a supermarket near you, as traditional yogurt is getting the squeeze from upstart Greek-style brands. WSJ's Sarah Nassauer joins Lunch Break. Photo: F. Martin Ramin...

[View on web](#)

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**sneier** @sneier · Oct 3

#m310 "@mashable: "Ok Glass, patient status." Google Glass in the operating room could be the future of healthcare [on.mash.to/1g7ImDC](http://on.mash.to/1g7ImDC)"

Expand

Reply Favorite More



**sneier** @sneier · Oct 3

#m310 "@mashable: "Ok Glass, patient status." Google Glass in the operating room could be the future of healthcare [on.mash.to/1g7ImDC](http://on.mash.to/1g7ImDC)"

Expand

Reply Favorite More



**sneier** @sneier · Oct 10

**#m310** ... & this {3 of 3} re: @Klout -> Social scoring: Has Klout lost its clout? [fw.to/upX6qvE](http://fw.to/upX6qvE) & [psfk.com/2013/05/klout-...](http://psfk.com/2013/05/klout-...) via @PSFK

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**sneier** @sneier · Oct 10

**#m310** welcome back from Fall Break to this {1 of 3} -> Why do grotesque fashion ads lure consumers? [phys.org/news190913031....](http://phys.org/news190913031....)

Expand

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**sneier** @sneier · Oct 10

**#m310** ... and this {2 of 3} -> Spokespeople are so five minutes ago — meet the 'brand ambassadors' [o.canada.com/news/national/...](http://o.canada.com/news/national/...) via @thecanadacom

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**sneier** @sneier · Oct 15

**#m310** ... a 5 star article for our discussion about decision-making: Give Yourself 5 Stars? Online, It Might Cost You [nyti.ms/18PZRzT](http://nyti.ms/18PZRzT)

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**sneier** @sneier · Oct 17

**#m310** a metaphor for our transition from individual decision making to group influences: [io9.com/5947112/watch-...](http://io9.com/5947112/watch-...) interpretations welcomed!

 io9

**Watch 32 discordant metronomes achieve synchrony in a matter of...**

If you place 32 metronomes on a static object and set them rocking out of phase with one another, they will remain that way indefinitely. Place them on a moveable surface, however, and something very...



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**sneier** @sneier · Oct 29

**#m310** user generated content at its finest for @LUMACHicago's All That Lies Beyond Us: participate here -> [luc.edu/luma/allthatli...](http://luc.edu/luma/allthatli...)

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sneier @sneier · Oct 31

#m310, on this, the day we talk about The Self: And Now There Is a 'National Selfie Portrait Gallery' [on.mash.to/19WvluC](http://on.mash.to/19WvluC) via @mashable



Mashable



### And Now There Is a 'National Selfie Portrait Gallery'

By Mashable @mashable

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**sneier** @sneier · Oct 31

**#m310** extended self example at the corner of Michigan and Chicago  
[pic.twitter.com/iduPrAvVjb](http://pic.twitter.com/iduPrAvVjb)



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**sneier** @sneier · Nov 7

**#m310** good tips for your PoC projects: Do Tweets W/ Hashtags, Quotes, & Images Get More Retweets? [marketingprofs.com/charts/2013/11...](http://marketingprofs.com/charts/2013/11...) via @marketingprofs

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**sneier** @sneier · Nov 19

**#m310** how very perfect as we begin Week 2 of Roundtables: The History of Hashtags [Infographic] [marketingprofs.com/chirp/2013/121...](http://marketingprofs.com/chirp/2013/121...) via @marketingprofs

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**sneier** @sneier · Nov 19

**#m310** how very perfect as we begin Week 2 of Roundtables: The History of Hashtags [Infographic] [marketingprofs.com/chirp/2013/121...](http://marketingprofs.com/chirp/2013/121...) via @marketingprofs

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APPENDIX H


ARCHIVAL DATA REPRESENTATIVE OF THEME 1



12 Nov

Perhaps #Basha would enjoy the Google Chrome ads circa 2011! Remember Sophie & Jess, #m310? [youtu.be/R4vkVHijdQk](https://youtu.be/R4vkVHijdQk), [youtu.be/w1sT7QV8nfU](https://youtu.be/w1sT7QV8nfU)


 [View media](#)




7h


Sam's Club isn't buying local - where can Jay get Tostitos and salsa in Leavenworth? #m310

[Collapse](#)   [← Reply](#)   [↻ Retweet](#)   [★ Favorite](#)   [⋮ More](#)

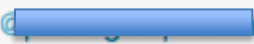
<b>1</b> RETWEET	<b>1</b> FAVORITE	 
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1:31 PM - 19 Nov 13 · Details

Reply to 




sneier @sneier

 so true ... maybe buying local is not as important for @jayadage compared to the other roundtable consumers? #m310 #jayadage


Expand

6h



4h

Alfredo should save money for Carmen to go to school in the city! Who needs a car when you have public transportation? #M310 #Aarmy

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@jayadage

Isn't Jay trying to shop locally? Is online the best option for him since it's not supporting local business? #m310

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1  
RETWEET

1  
FAVORITE



1:57 PM - 19 Nov 13 · Details



Rosemary receiving purchasing advice from Michael Scott? #firstproblem #teamrosemary #m310

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1  
RETWEET

1  
FAVORITE



1:26 PM - 3 Dec 13 · Details






8h

#m310 #teamrosemary Hasn't Rosemary heard that money can't buy happiness??!


[Collapse](#) ↩ Reply ↻ Retweet ★ Favorite ⋮ More

1  
RETWEET




1:30 PM - 3 Dec 13 · Details

Reply to @TWeb8



8h

 nope! #teamrosemary

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## REFERENCES

- Baumbach, D. J. (2009). Web 2.0 and you. *Knowledge Quest*, 37(4), 12-19.
- Beer, D. D. (2008). Social network (ing) sites... revisiting the story so far: A response to danah boyd & Nicole Ellison. *Journal of Computer Mediated Communication*, 13(2), 516-529.
- Botha, E., Farshid, M., & Pitt, L. (2011). How sociable? An exploratory study of university brand visibility in social media. *South African Journal of Business Management*, 42(2), 43-51.
- boyd, d. m., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer Mediated Communication*, 13(1), 210-230.
- Brown, K. L. (2003). From teacher-centered to learner-centered curriculum: improving learning in diverse classrooms. *Education*, 124(1), 49-54.
- Broughton, J. (1978). Development of concepts of self, mind, reality, and knowledge. *New Directions for Child and Adolescent Development*, 1, 75-100.
- Buettner, R. (2013). The utilization of Twitter in lectures. *Informatik Proceedings*, p. 244-254.
- Callaghan, N., & Bower, M. (2012). Learning through social networking sites—the critical role of the teacher. *Educational Media International*, 49(1), 1-17.
- Chubbuck, S. M. (2007). Socially just teaching and the complementarity of Ignatian pedagogy and critical pedagogy. *Christian Higher Education*, 6(3), 239-265.
- Clarke, T., & Nelson, C. (2012). Classroom community, pedagogical effectiveness, and learning outcomes associated with Twitter use in undergraduate marketing courses. *Journal for Advancement of Marketing Education*, 20(2), 1-10.
- Cole, M. (2009). Using Wiki technology to support student engagement: Lessons from the trenches. *Computers & Education*, 52(1), 141-146.
- Cronin, J. J. (2009). Upgrading to Web 2.0: An experiential project to build a marketing wiki. *Journal of Marketing Education*. 31(1), 66-75.

- Dewey, J. (1933). *How we think: A restatement of the relation to reflective thinking to the educative process*. Lexington, MA.
- Duminuco, V. J. (Ed.). (2000). *The Jesuit ratio studiorum: 400th anniversary perspectives*. Fordham Univ Press.
- Dunlap, J. C., & Lowenthal, P. R. (2009). Tweeting the night away: Using Twitter to enhance social presence. *Journal of Information Systems Education*, 20(2), 129-135.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256.
- Ebner, M., & Schiefner, M. (2008). Microblogging-more than fun. In Proceedings of IADIS mobile learning conference, 155-159.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends.” Social capital and college students’ use of online social network sites. *Journal of Computer Mediated Communication*, 12(4), 1143-1168.
- Erkollar, A., & Oberer, B. J. (2013). Putting Google+ to the test: Assessing outcomes for student collaboration, engagement and success in higher education. *Procedia-Social and Behavioral Sciences*, 83, 185-189.
- Fischer, K. W. (1980). A theory of cognitive development: The control and construction of hierarchies of skills. *Psychological Review*, 87(6), 477.
- Giesler, M., & Pohlmann, M. (2003). The anthropology of file sharing: Consuming Napster as a gift. *Advances in consumer research*, 30, 273-279.
- Gao, F., Luo, T., & Zhang, K. (2012). Tweeting for learning: A critical analysis of research on microblogging in education published in 2008–2011. *British Journal of Educational Technology*, 43(5), 783-801.
- Granitz, N., & Koernig, S. K. (2011). Web 2.0 and marketing education: Explanations and experiential applications. *Journal of Marketing education*, 33(1), 57-72.
- Greene, J. A., Muis, K. R., & Pieschl, S. (2010). The role of epistemic beliefs in students’ self-regulated learning with computer-based learning environments: Conceptual and methodological issues. *Educational Psychologist*, 45(4), 245-257.
- Greenhow, C., Robelia, B., & Hughes, J. E. (2009). Learning, teaching, and scholarship in a digital age Web 2.0 and classroom research: What path should we take now?. *Educational Researcher*, 38(4), 246-259.
- Hargittai, E. (2005). Survey measures of web-oriented digital literacy. *Social Science Computer Review*, 23(3), 371-379.

- Hargittai, E. (2010). Digital Na(t)ives? Variation in Internet Skills and Uses among Members of the “Net Generation”. *Sociological Inquiry*, 80(1), 92-113.
- Hargittai, E., & Hsieh, Y. L. P. (2010). Predictors and consequences of differentiated practices on social network sites. *Information, Communication & Society*, 13(4), 515-536.
- Hargittai, E. & Hsieh, Y.P. (2012). Succinct Measures of Web-Use Skills. *Social Science Computer Review*, 30 (1), 95-107.
- Hargittai, E., & Litt, E. (2011). The tweet smell of celebrity success: Explaining variation in Twitter adoption among a diverse group of young adults. *New Media & Society*, 13(5), 824-842.
- Hidding, G. J., Scheidenhelm, C.L., & Milligan, S.M. (2014). A Generalized rubric for reflective assignments with the Ignatian pedagogy paradigm. *Journal of Jesuit Business Education*, 5.
- Hill, M. E., & McGinnis, J. (2007). The curiosity in marketing thinking. *Journal of Marketing Education*, 29(1), 52-62.
- Hofer, B. K., & Pintrich, P. R. (1997). The development of epistemological theories: Beliefs about knowledge and knowing and their relation to learning. *Review of Educational Research*, 67(1), 88-140.
- Honeycutt, C., & Herring, S. C. (2009). Beyond microblogging: Conversation and collaboration via Twitter. System Sciences HICSS 42nd Hawaii International Conference, 1-10.
- Junco, R., Elavsky, C. M., & Heiberger, G. (2012). Putting twitter to the test: Assessing outcomes for student collaboration, engagement and success. *British Journal of Educational Technology*.
- Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning*, 27(2), 119-132.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.
- Kaplan, M. D., Piskin, B., & Bol, B. (2010). Educational blogging integration technology into marketing experience. *Journal of Marketing Education*, 32(1), 50-63.

- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business horizons*, 54(3), 241-251.
- Kilian, T., Hennigs, N., & Langner, S. (2012). Do Millennials read books or blogs? Introducing a media usage typology of the internet generation. *Journal of Consumer Marketing*, 29(2), 114-124.
- King, P. M., & Kitchener, K. S. (1994). Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults. Jossey Bass Higher and Adult Education Series and Jossey-Bass Social and Behavioral Science Series. San Francisco, CA: Jossey-Bass.
- Karpinski, A. C., & Duberstein, A. (2009). A description of Facebook use and academic performance among undergraduate and graduate students. In Annual Meeting of the American Educational Research Association, San Diego, CA, 5-10.
- Kirschner, P. A., & Karpinski, A. C. (2010). Facebook® and academic performance. *Computers in Human Behavior*, 26(6), 1237-1245.
- Kozinets, R. V. (2010). *Netnography: Doing ethnographic research online*. Sage Publications.
- Kozinets, R. V. (2002). The field behind the screen: using netnography for marketing research in online communities. *Journal of Marketing Research*, 39(1), 61-72.
- Kozinets, R. V. (1999). E-tribalized marketing?: The strategic implications of virtual communities of consumption. *European Management Journal*, 17(3), 252-264.
- Krause, K. L., & Coates, H. (2008). Students' engagement in first- year university. *Assessment & Evaluation in Higher Education*, 33(5), 493-505.
- Kennedy, G., Dalgarno, B., Gray, K., Judd, T., Waycott, J., Bennett, S. J., & Churchwood, A. (2007). The net generation are not big users of Web 2.0 technologies: Preliminary findings.
- Lampe, C., Wohn, D. Y., Vitak, J., Ellison, N. B., & Wash, R. (2011). Student use of Facebook for organizing collaborative classroom activities. *International Journal of Computer-Supported Collaborative Learning*, 6(3), 329-347.
- Leidner, D. E., & Jarvenpaa, S. L. (1993). The information age confronts education: Case studies on electronic classrooms. *Information Systems Research*, 4(1), 24-54.
- Lending, D. (2010). Using a wiki to collaborate on a study guide. *Journal of Information Systems Education*, 21(1), 5-13.

- Lin, M. F. G., Hoffman, E. S., & Borengasser, C. (2013). Is social media too social for class? A case study of Twitter use. *TechTrends*, 57(2), 39-45.
- Lowe, B., & Laffey, D. (2011). Is Twitter for the birds? Using Twitter to enhance student learning in a marketing course. *Journal of Marketing Education*, 33(2), 183-192.
- Margolda, M. BM. (1992). Knowing and reasoning in college: Gender-related patterns in students' intellectual development. San Francisco, CA: Jossey-Bass.
- Margolda, M. BM. (2004). Evolution of a constructivist conceptualization of epistemological reflection. *Educational Psychologist*, 39(1), 31-42.
- McCorkle, D. E., & McCorkle, Y. L. (2012). Using LinkedIn in the marketing classroom: Exploratory insights and recommendations for teaching social media/networking. *Marketing Education Review*, 22(2), 157-166.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
- Morgan, F. N., & McCabe, D. B. (2012). Learning why we buy: An experiential project for the consumer behavior course. *Journal of Marketing Education*, 34(2), 140-155.
- Moore, W. S. (1994). Student and faculty epistemology in the college classroom: The Perry schema of intellectual and ethical development. *Handbook of college teaching: Theory and applications*, 45-67.
- Mountin, S., & Nowacek, R. (2012). Reflection in action: A signature Ignatian pedagogy for the 21st Century.
- Nelson, M. R., & Otnes, C. C. (2005). Exploring cross-cultural ambivalence: a netnography of intercultural wedding message boards. *Journal of Business Research*, 58(1), 89-95.
- Nelson, M. R., Yaros, R. A., & Keum, H. (2006). Examining the influence of telepresence on spectator and player processing of real and fictitious brands in a computer game. *Journal of Advertising*, 35(4), 87-99.
- O'Reilly, N. J., Rahinel, R., Foster, M. K., & Patterson, M. (2007). Connecting in megaclasses: The netnographic advantage. *Journal of Marketing Education*, 29(1), 69-84.
- Owens, J. D., & Price, L. (2010). Is e-learning replacing the traditional lecture? *Education+ Training*, 52(2), 128-139.

- Patton, M. Q. (2002). Two decades of developments in qualitative inquiry a personal, experiential perspective. *Qualitative Social Work*, 1(3), 261-283. 181
- Payne, N. J., Campbell, C., Bal, A. S., & Piercy, N. (2011). Placing a hand in the fire: Assessing the impact of a YouTube experiential learning project on viral marketing knowledge. *Journal of Marketing Education*, 33(2), 204-216.
- Peltier, J. W., Hay, A., & Drago, W. (2005). The reflective learning continuum: Reflecting on reflection. *Journal of Marketing Education*, 27(3), 250-263.
- Perry, W. G. (1970). Forms of intellectual and ethical development in the college years: a scheme.
- Petkus, E. (2000). A theoretical and practical framework for service-learning in marketing: Kolb's experiential learning cycle. *Journal of Marketing Education*, 22(1), 64-70.
- Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the horizon*, 9(5), 1-6.
- Reinhardt, W., Wheeler, S., & Ebner, M. (2010). All I need to know about Twitter in education I learned in kindergarten. *Key Competencies in the Knowledge Society*, 322-332.
- Ryan, M. P. (1984). Monitoring text comprehension: Individual differences in epistemological standards. *Journal of Educational Psychology*, 76(2), 248.
- Rinaldo, S. B., Laverie, D. A., Tapp, S., & Humphrey Jr, W. F. (2013). The benefits of social media in marketing education: Evaluating Twitter as a form of cognitive flexibility hypertext. *Journal for Advancement of Marketing Education*, 21(1), 16.
- Rinaldo, S. B., Tapp, S., & Laverie, D. A. (2011). Learning by tweeting: using Twitter as a pedagogical tool. *Journal of Marketing Education*, 33(2), 193-203.
- Titus, P. A., & Petroschius, S. M. (1993). Bringing consumer behavior to the workbench: An experiential approach. *Journal of Marketing Education*, 15(1), 20-30.
- Sacks, M. A., & Graves, N. (2012). How many "friends" do you need? Teaching students how to network using social media. *Business Communication Quarterly*, 75(1), 80-88.
- Selwyn, N. (2009). Faceworking: exploring students' education related use of Facebook. *Learning, Media and Technology*, 34(2), 157-174.
- Schommer, M. (1990). Effects of beliefs about the nature of knowledge on comprehension. *Journal of Educational Psychology*, 82(3), 498-504.
- Schoenfeld, A. H. (1989). Ideas in the air: Speculations on small group learning,

environmental and cultural influences on cognition, and epistemology. *International Journal of Educational Research*, 13(1), 71-88.

Solomon, M. R. (2012). *Consumer behavior: buying, having, and being*. Pearson Education.

Steinfeld, C., Ellison, N. B., & Lampe, C. (2008). Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. *Journal of Applied Developmental Psychology*, 29(6), 434-445.

Stearns, J. M., & Crespy, C. T. (1995). Learning hierarchies and the marketing curriculum: A proposal for a second course in marketing. *Journal of Marketing Education*, 17(2), 20-32.

Tapscott, D. (2009). *Grown up digital*. New York: NY. McGraw-Hill.

Taylor, S. A., Hunter, G. L., Melton, H., & Goodwin, S. A. (2011). Student engagement and marketing classes. *Journal of Marketing Education*, 33(1), 73-92.

Van Doren, D. C., & Smith, D. B. (1999). Scenario planning: a new approach to teaching Marketing strategy. *Journal of Marketing Education*, 21(2), 146-155.

Walther, J. B. (1996). Computer-mediated communication impersonal, interpersonal, and hyperpersonal interaction. *Communication research*, 23(1), 3-43.

Welch, B. K., & Bonnan-White, J. (2012). Twittering to increase student engagement in the university classroom. *Knowledge Management & E-Learning: An International Journal*, 4(3), 325-345.

Whitmire, E. (2004). The relationship between undergraduates' epistemological beliefs, reflective judgment, and their information-seeking behavior. *Information Processing & Management*, 40(1), 97-111.

Willis, J.W. (2007). *Foundations of qualitative research*. Thousands Oaks, CA: Sage Publications.

Windschitl, M. (1998). The WWW and classroom research: what path should we take?. *Educational Researcher*, 27(1), 28-33.

Wood, P. K. (1983). Inquiring systems and problem structure: Implications for cognitive development. *Human Development*, 26(5), 249-265.

Yew, J., Gibson, F., & Teasley, S. (2006). Learning by tagging: group knowledge formation in a self-organizing learning community. In Proceedings of the 7<sup>th</sup> international conference on Learning sciences. International Society of the Learning Sciences.



Yin, R. K. (2009). *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage Publications. 183

Zahay, D., Eddy, A., and Kaufman, I. (2013). The fifty percent rule: The challenge of engaging students in social media in the classroom. Unpublished manuscript, University of Northern Illinois.

## VITA

Dr. Stacy Neier was born in Louisville, Kentucky, yet considers her family's home to be Columbia, Missouri. Before attending Loyola University Chicago for her MBA and PhD studies, she attended the University of Missouri-Columbia where she earned Bachelors of Science in Business Administration and Human Environmental Sciences. Prior to pursuing academics full time, Dr. Neier worked for Gap Inc. and Euromonitor International. Her first teaching experience was as an adjunct instructor with Art Institutes' Fashion Marketing and Merchandising faculty. She then joined the Quinlan School of Business at Loyola University Chicago as a full time Clinical Instructor in 2008. Stacy continues her work as a Senior Lecturer for the Department of Marketing at Quinlan where she teaches marketing research, consumer behavior, retailing management, and marketing fundamentals. These courses are offered as engaged learning, writing intensive, and honors sections.

Dr. Neier lives in Chicago with her husband Matt.

